IP Kamera 9070-CSWO/CSO

User Manual

Release Date: 9/2010
Firmware Version: 1.2.1.4plus

Warning: Any changes made to this equipment without permission may cause damages to the device!

IMPORTANT NOTICE

1. IP Kamera 9070-CSWO/CSO was designed for indoor use, the manufacturer responsibility for possible damages caused by outdoor use, especially in the rain.
2. Please use the power adapter provided by the dealer, the manufacturer responsibility for the possible damage from using power adapters not.
3. Do not shake the IP Kamera 9070-CSWO/CSO in any fashion
4. Please contact the dealer If IP Kamera 9070-CSWO/CSO is not working properly.

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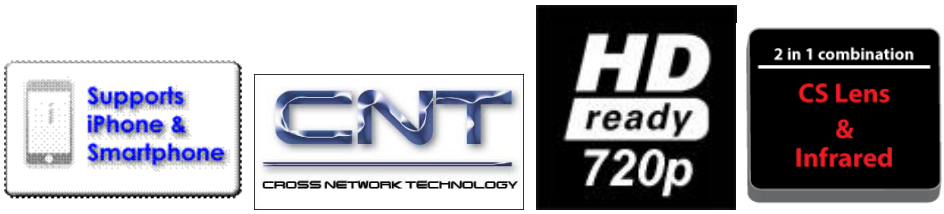
1.) Welcome

Introduction

The IP Kamera 9070-CSWO/CSO provides reliable, high quality solution to IP Kamera's. The distinctive 720P HD quality picture, Tri-mode video capability, RTSP broadcasting capability, wireless N 802.11n (**9070-CSWO only**) connectivity, electronic IR switching filter, and other functions makes this small device very powerful and unique.

Using innovative IP technology, the built in web server of the IP Kamera 9070-CSWO/CSO will allow you to view your IP Kamera from any remote locations around the world while bringing you world class surveillance and ease of mind. Furthermore, with CNT technology the 9070-CSWO/CSO is easy to setup & use, simply just plug and play.



Minimum System Requirements

CPU Minimum Requirements

- Intel(R), Pentium(R), DUAL Core (D),CPU 3.0GHz or equivalent
- Operating Systems: WINDOWS Operating Systems (IE5.0+SPI)
- 512 MB system memory or above
- Video Card: 3D hardware accelerator card required – 100% DirectX 9.0c compatible
- 10/100 Ethernet switch/hub
- Sound Card: DirectX 9.0c compatible sound card
- Ethernet network port/card
- Network cable
- Internet (For remote access) or Ethernet Network (Internal Network use) with some type of Internet connection, (i.e. ADSL, Cable, Dial up or any other forms of Internet service)

Software

- VLC media player 0.8.6b or above.
- Windows XP Service Pack 2 or above.
- Resolution of screen setting: 1280x960 or higher for the display of 720P

2.) Product Overview

Features

1. Compatible with all standard 1/3" CS lens
2. Electronic Switching Infrared Filter for Night Vision
3. Wireless N 802.11n connectivity **(9070-CSWO only)**
4. Tri-Mode Camera (MPG4-1/MPEG4-2/M-Jpeg)
5. Advance Motion detection trigger AVI /Jpeg save on FTP / SD card or Email
6. 3 layers (Admin, Operator, and User) Password protected
7. Resolution from CIF 352x192 up to **HD 1280x720P**
8. Supports NTP protocol to get correct time schedule.
9. 1/2.5" Advance CMOS sensor, with highly sensibility for quick response insufficient lighting.
10. Supports HTTP CGI command set. Easy for system integration
11. IP Service Search utility, to find your IP Kamera on internet with ease
12. Watchdog / Event log design
13. Adjustable frame-rate, bit-rate, rate-control type, quality factor for best image quality and speed.
14. Supports date and time marking on the captured video, and also inserted streamed data.
15. Measured End-to-End latency is less than 150ms
16. Supports adjustable backlight, brightness, contrast, saturation & sharpness
17. TV Output capabilities
18. Automatic alarm recording buffer
19. CNT Technology – Just Plug and Play no need to port forward
20. EPTZ – Electronic Pan, Tilt, and Zoom
21. 2GB Embedded memory – DVR capabilities
22. Scheduler recording, Email Capabilities, & Alarm Recording Buffer
23. Supports: HTTP Web Server (HTTP), SSL, FTP client, SMTP client, NTP client, DHCP client, UPnP client, RTSP over UDP, RTP

Specification

Casing: Reinforced Aluminum
Case Color: Midnight Grey
Weight: 332g
Dimensions (W x L x H): 7cm x 14cm x 4.5cm
Operating Conditions: 5 – 50 °C (41 – 122 °F)
Storage Conditions: Humidity 20 – 80% RH
Power: AC Adaptor
Input: 100-240V~0.3A MAX 10-20VA, 50-60Hz
Output: +5V 1.0A Max 5W

Package Contents	
1.) 9070-CSWO/CSO Unit or 9070-CSO	
2.) CS Lens ***Lens Specifications*** 1.) Format: 1/3” 2.) EFFL: 6MM 3.) Image Space F/#: F1.2 4.) Field Angle: 58 degree 5.) Stop: Fixed 6.) Focus Extension: 20cm--∞ 7.) Mount; CS 8.) Outside dimensions: φ 30 x 31.7	
3.) 9070-CSO/CSWO Installation CD	
4.) AC Adaptor	(One AC adaptor will be included and will correspond to the countries power standards) **Specs:** Input: 100-250Vac /47-63Hz, 1A Output: 5Vdc/1A
5.) RJ45 Cable x 1	
6.) Wireless 802.11N dongle antenna **(9070-CSWO only)**	
7.) Camera Mounting Bracket	

3.) Interface Description

Rear Panel View

Rear View

Reset Button:	**Reset to Manufacturer Default:** Hold Reset button for 5-10 Seconds and the device will reset to manufacturer default
Video Out:	The Video out requires a BNC connector to output video to a different source.
RJ45 Ethernet:	Plug in the RJ45 Ethernet cable to the Ethernet port
DC 5V Power Input:	Plug in the Power Adapter to the DC 5V
USB	The USB is for the wireless Dongle **(9070-CSWO only)** **Note: Only compatible with assigned Wireless Dongle**

4.) Hardware Setup

*Before setup the device make sure of the following:

1.) Make sure that all the package contents are all included
    if anything is missing please contact the store or your distributor.
2.) Make sure the power adaptor is the correct specification.
3.) Make sure that all the cables are working correctly

Internet Accessible Setup

The internet connection can be setup in two main ways so that the 9070-CSWO/CSO can be accessed through the internet

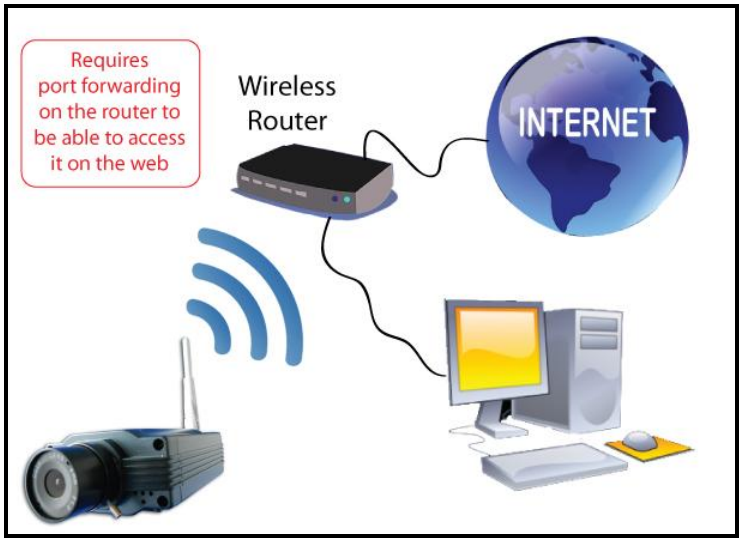
Router / Firewall Setup

Using a Router/Firewall to connect each device to the internet

Note: The device needs to be port forwarded on the router so that it can be accessed by the internet.

For example
9070CSO/CSWO IP Address: 192.168.1.882
9070CSO/CSWO Port: 9070

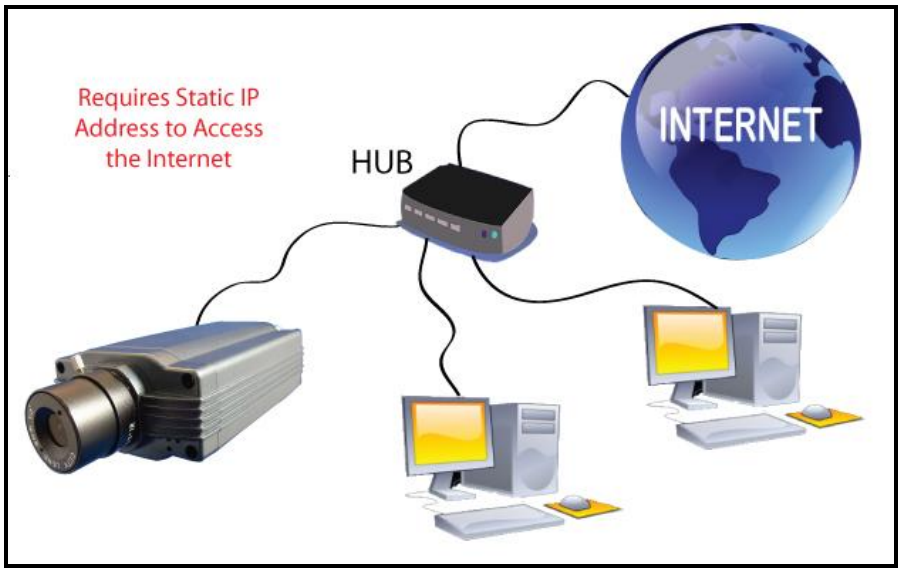
On the router that is being used port forwarded (port triggered) IP Address 192.168.1.882 and port 9070. For this section you may be required to refer the user manual for the router due to the fact that each router has a different way of setting up the device.



Note: *Please refer to page: 43 on how to use CNT (Cross Network Technology). With CNT no port forwarding is required to view the camera. But for normal functionality please use the web browser to view the camera.*

Static IP Setup

Static IP Address provided by the ISP.



In this case, the 9070-CSWO/CSO is being connected to the internet through a hub, which is different from a router. The hub does not provide DHCP, and therefore would require that this setup have a static IP Address that is provided by the ISP.

Contact the ISP to find out the static IP address so that your device can be accessed through the internet. Once a Static IP has been assigned the device will be able to automatically go onto the internet. .

Connecting the Device

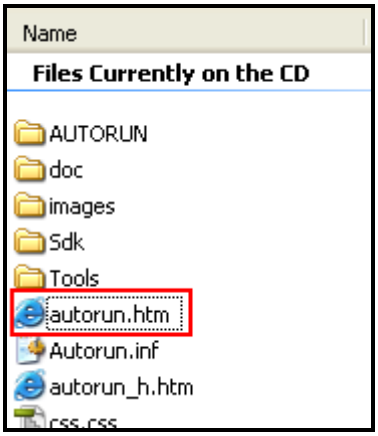
1.) Connect the IP Kamera 9070 to a HUB or Router with a RJ45 network cable.
2.) Connect the HUB or Router to the internet (May through ADSL/XDSL modem).
3.) Connect the power adapter to the DC 5V port of IP Kamera 9070.

5.) Software Setup

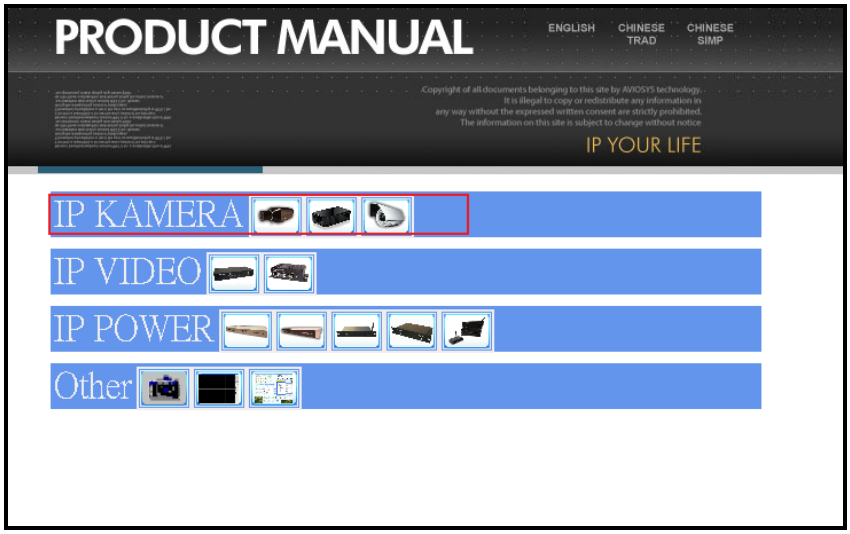
The software for the device is located on the **Media Link-IP Family CD** that came with the device. IP Kamera Pack is located on the main page of the CD. Please follow the directions carefully and install the necessary files

Software

1.) First place the **Media Link-IP Family CD** that came with your device into your CD/DVD Rom drive. The CD should auto run but if it does not go to the CD/DVD Rom drive and select the file "**autorun.html**".



2.) Select the IP Kamera section and pick the IP Kamera and Model that you are using.



3.) Download the following software and save them to the appropriate locations.

a. **IP Edit** - Device search tool which allows you to modify IP settings, find your on the local network and IP Service.
b. **Surf 16 CH –** 16 Channel DVR, Monitoring, & Recording Software. Views up to 16 channels on one screen.
c. **Surf Pop –** Surf Pop is a new interactive IP Kamera monitoring software

4.) Once installation is complete please double click the **IP Edit** to configure and search for your device.

Installing VLC Codec

The files that are recorded by the 9070-CSWO/CSO requires this codec so that you are able to view the view.
Download the latest version of the VLC codec and install it into your computer. You can find the latest version of the codec from here
http://www.videolan.org/

IP Edit

IP Edit is a search tool designed to setup and access the IP Kamera 9070-CSWO/CSO.
IP Service is an additional feature which searches for the device easily without having to remember long complicated IP addresses. Instead, this technology allows the user find his or her device through the internet just by device name.

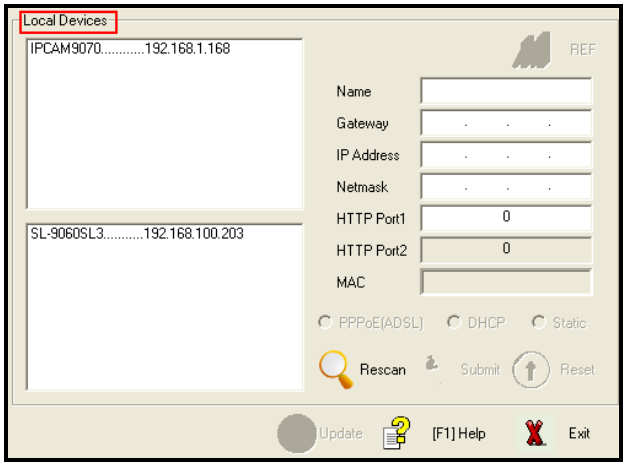
Note: Please allow the IP Kamera 9070-CSWO/CSO 1 to load before using IP Edit.

Default IP: 192.168.1.168 (When 9070 is connected to PC directly)
Default Login: Admin
Default Password: 12345678

1.) Double click on the IP Edit icon to run the program.

2.) Open IP Edit and any device in the same network should automatically be detected and listed in the **local devices sections**.

Note: If the device is not showing up, please hit the rescan button and wait about 1 minute



Setup the Device:

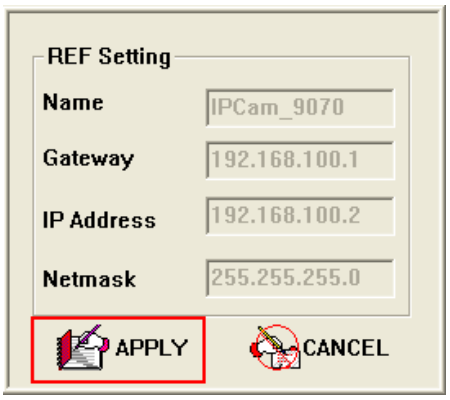
All devices will need to be on the same network if not the device cannot be accessed and will not be detected.

Quick Easy Setup (Recommend for Beginner Users)

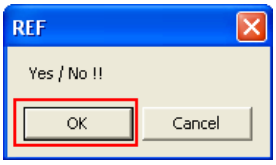
1.) Click on the REF button,

and wait a few seconds. IP Edit will automatically detect the network settings and setup the device.

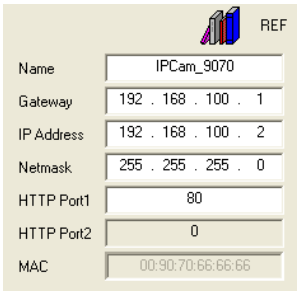
2.) Once settings have been detected hit the apply button to apply the new settings.



3.) Hit yes to confirm and Enter the login and password for the Device to Approve changes



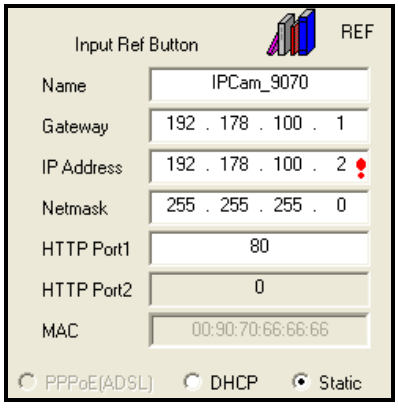
4.) Then hit the rescan button on IP Edit to confirm the changes have been made.



Custom Setup (Advance Users)

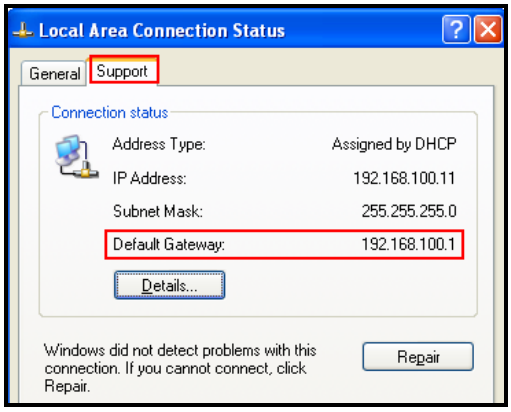
1.) Highlight the device on the local devices section and on the right side of IP Edit all network information on the device will be displayed.

If the device is not on the same network a Red Exclamation mark will appear in the IP Network information section



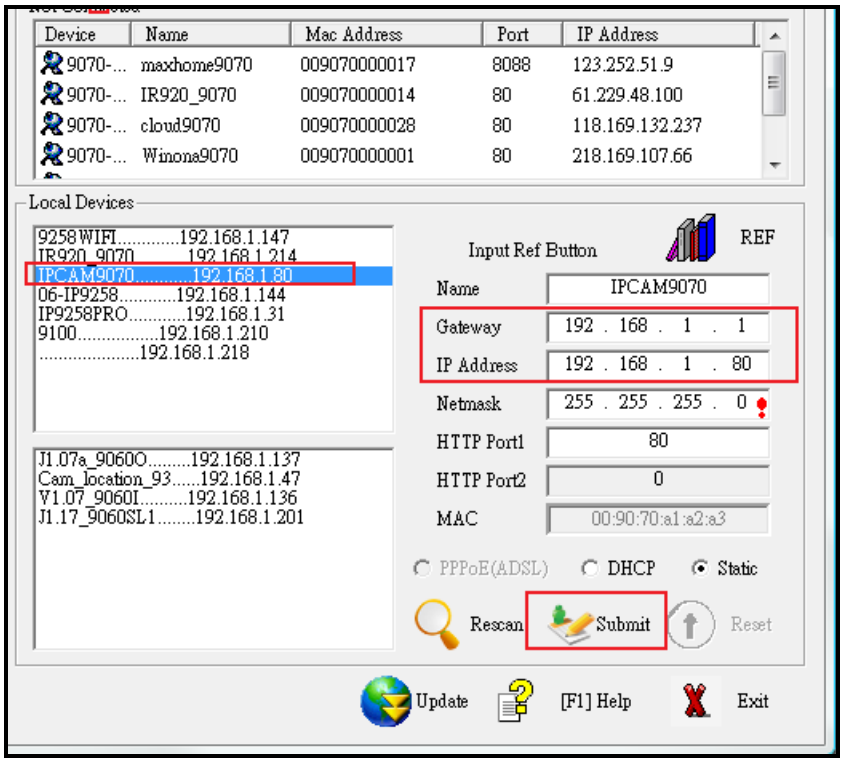
2.) To setup the device, you will need type in the correct **Gateway** and **IP Address**.

The Gateway Address: The gateway address can be obtained in Windows under the network connections page



IP Address: Make sure the first 3 sections of the IP Address matches the gateway address.
Example: Gateway Address – 192.168.1.1 IP Address – 192.168.1.xxx

3.) Once the Default Gateway information has been obtained, enter the correct information into IP Edit and hit the submit button.



4.) Then hit the rescan button on IP Edit to confirm the changes have been made.

Setting up Wireless Settings

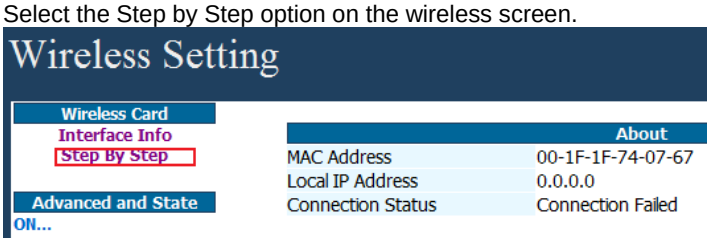
Step by Step (Recommended):

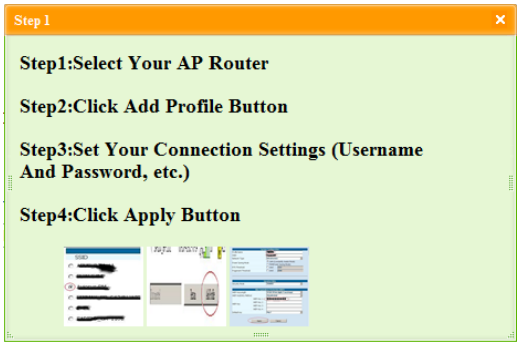
1.) Next go to the network

settings on the bottom and select Wireless. A new window should pop up with the wireless settings

.

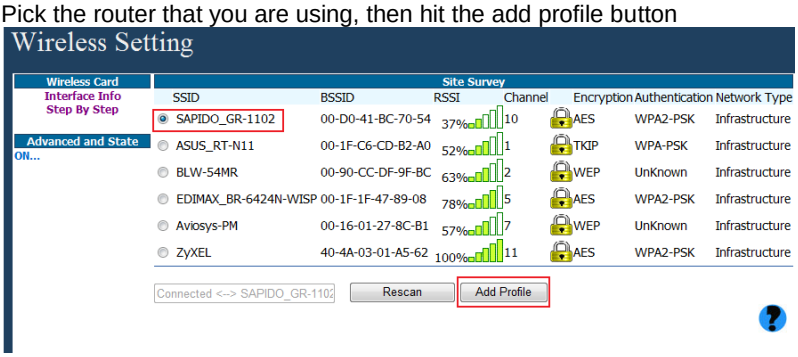
2.) Select the Step by Step option on the wireless screen.



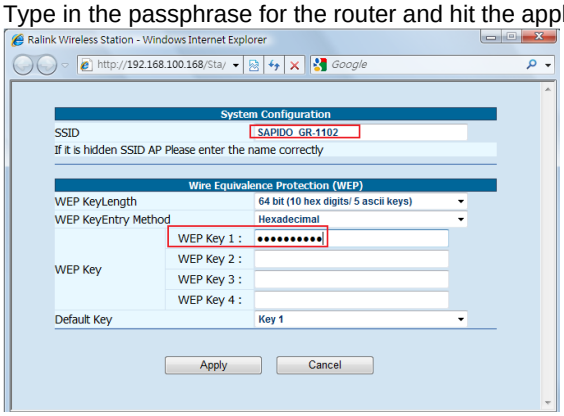

Step 1
Step1:Select Your AP Router
Step2:Click Add Profile Button
Step3:Set Your Connection Settings (Username And Password, etc.)
Step4:Click Apply Button

3.) Click on the for more information on how to setup the device.

4.) Pick the router that you are using, then hit the add profile button



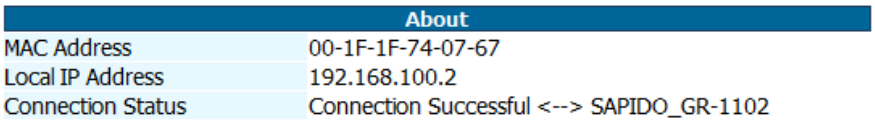
5.) Type in the passphrase for the router and hit the apply button.



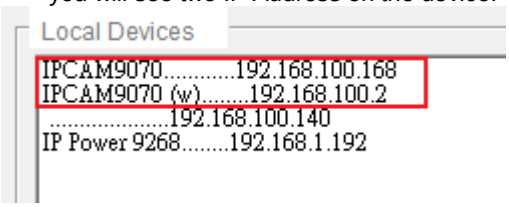
6.) Wait about 60 seconds for device to connect.

Connecting.....About 60 seconds....

7.) Then check to see for the connection successful under the connection status and the device is good to go.

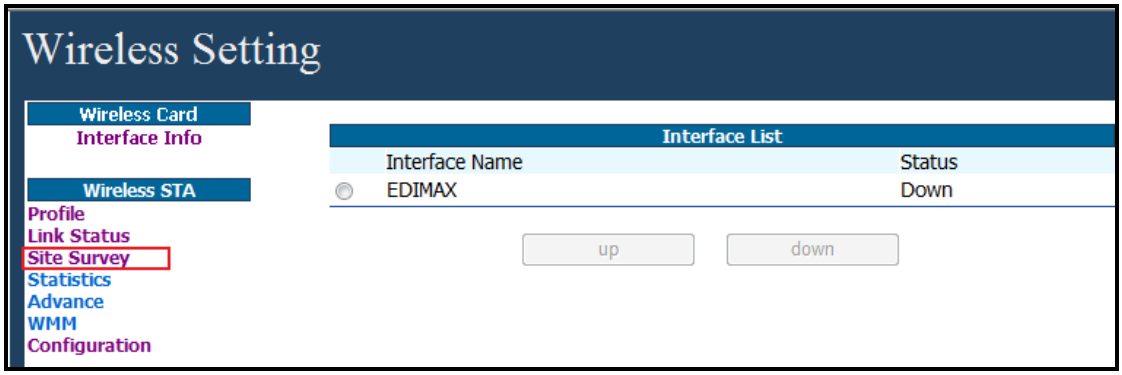


8.) Unplug the RJ45 cable of the device and search on IP Edit for the new wireless settings. You will see a (W) next to your device in IP Edit which means wireless is activated. If the RJ45 cable is not disconnect you will see two IP Address on the device.

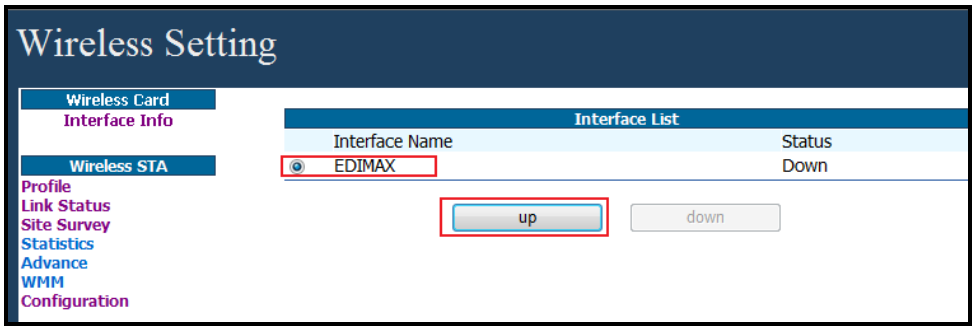


Advance Setup:

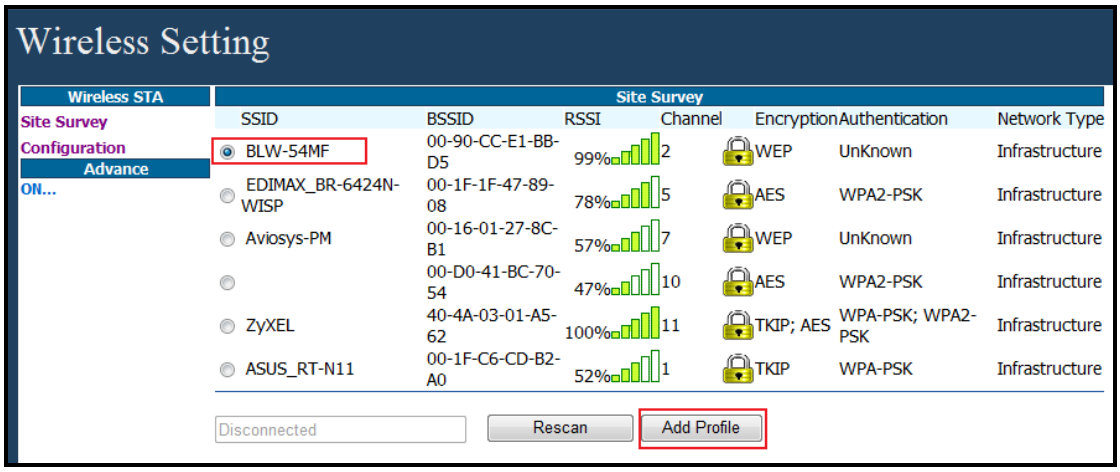
Click on the On Link under advance section
Click on the Site Survey Link



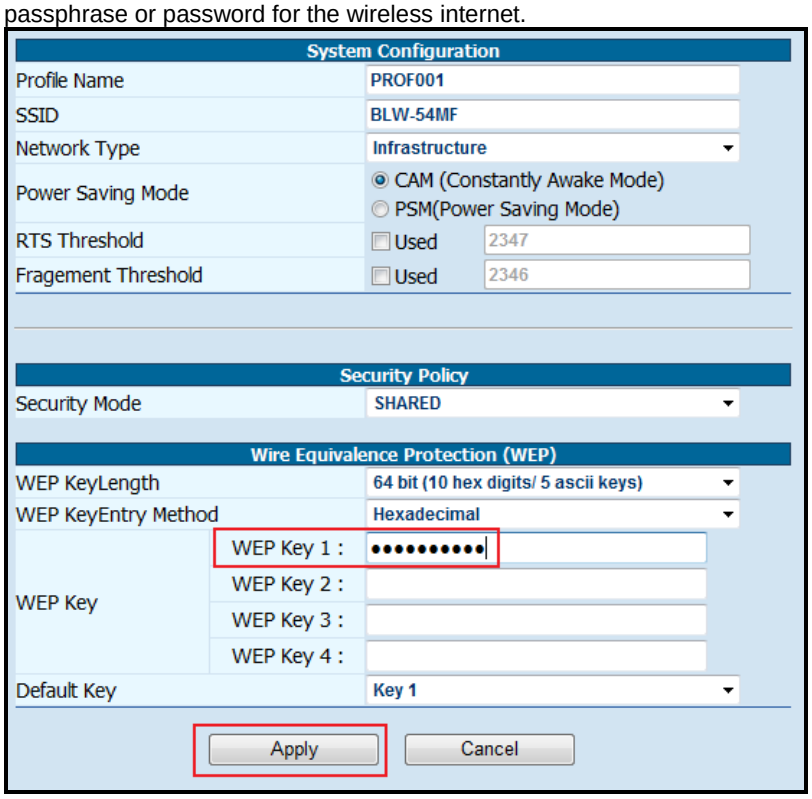
Then select the Interface Name and select the EDIMAX radial button, then click up.



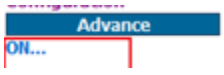
Next select the wireless internet network that you would like to connect to and hit the add profile button to add a new profile



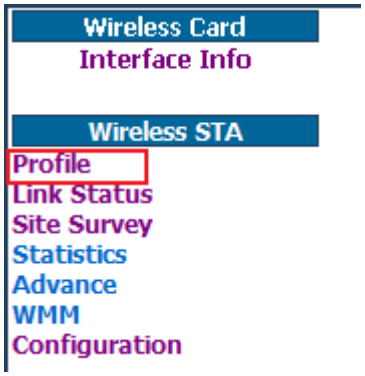
A new window pop and you will be required to enter the necessary network information including the passphrase or password for the wireless internet.



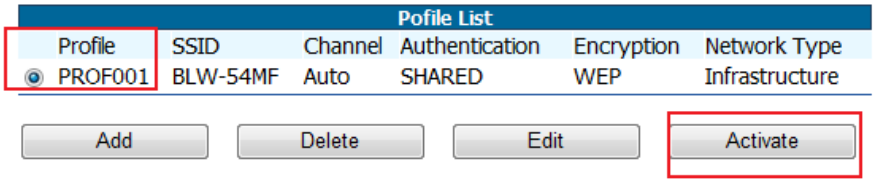
Then hit apply to save all settings.
Then go back to the Main Wireless page and click on the on link under Advance for more options.



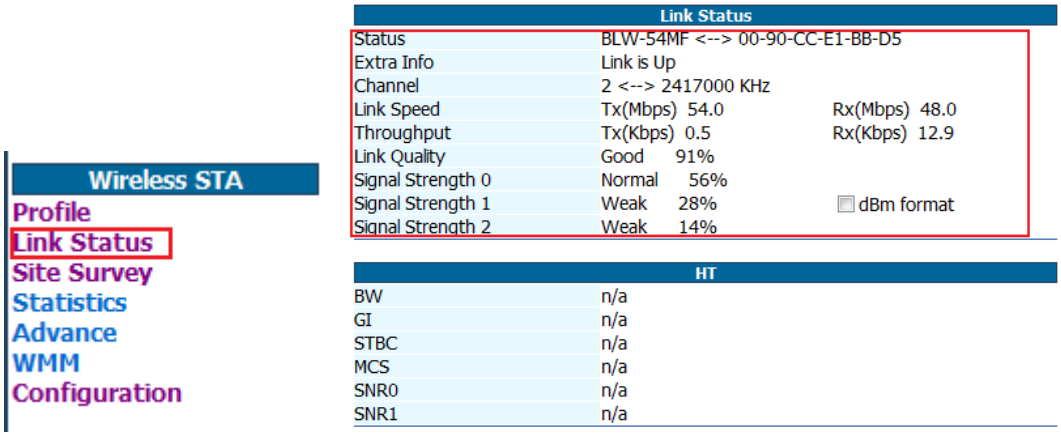
Select the Profile link to see the profiles that you have added to the device.



Click on your newly added profile and hit the activate button to start up the Wireless settings.

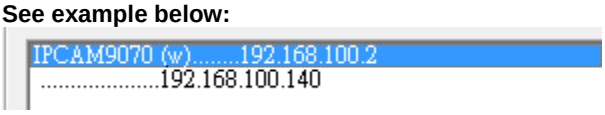


Then click on Link Status to make sure that your device is connected to the wireless network.
Note: If the device is connected it will show some information in the Link Status page.



Now that the device is connected to the wireless network.
Unplug the Ethernet cable to the device.

Then unplug the power cable to the device for about 15 seconds.
Then plug in the power to the device and give the device about 1 minute to start up. Then with IP Edit search for the new wireless device. If the device is using wireless, you should see a (w) next to the name of your device.
See example below:



Note: Remember to Port forward the device with the New Wireless IP Address so that you can connect to the device from via outside the network.

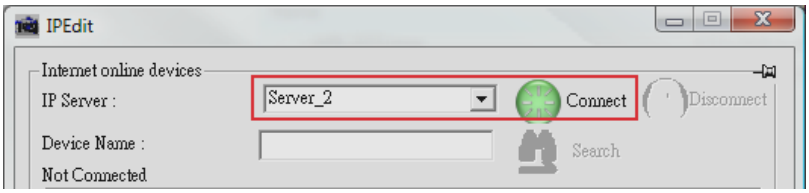
IP Service

How to use IP Service on IP Edit:

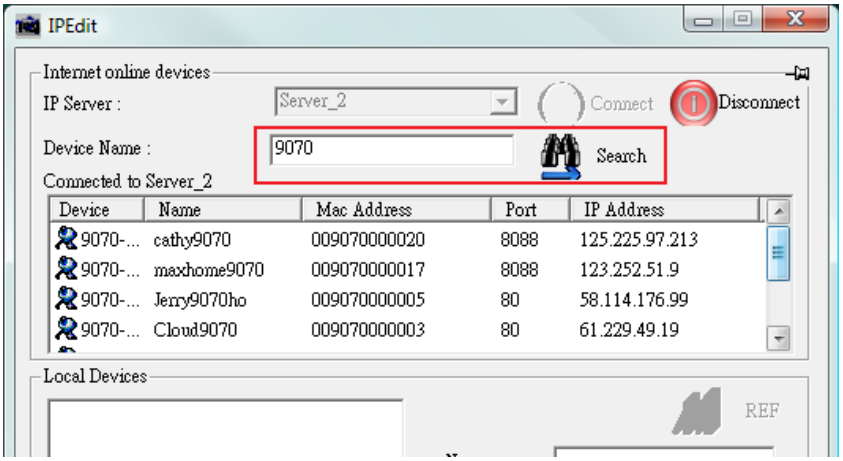
IP service allows the user to directly connect to his / her device through the internet without having to remember long confusing IP Address. Instead you only need to remember the name of the device that the you have selected. Then the user can connect to IP Service, type in the device name, and connect directly to the device.

Note: IP Kamera 9070-CSWO/CSO requires you to select Server 2 on IP Service

1.) Open IP Edit, the device will show up in the Local Device Section. If you have not selected a name for the device, please refer to the section on the manual labeled: “Naming your device”.
2.) To start IP Service, Press the green connect button on the top of IP Edit.



3.) Once you have been connected search for your device by typing in at least the first 3 letters that you named your device with. Then hit the search button.



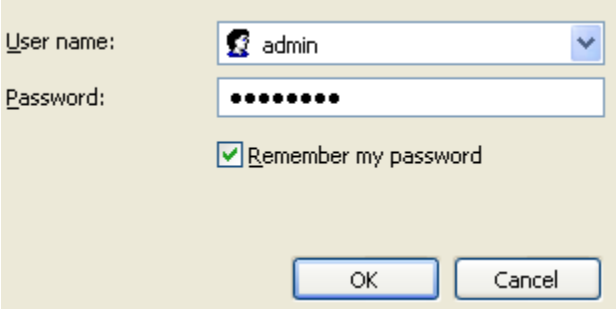
4.) Double click on your device and an Internet Explorer window will appear connecting directly to your device.

Note: It is crucial to have the IP Address of the device port forwarded from the router that you are using so you can connect to your device from anywhere. Please refer to your routers user manual on how to port forward your device.

6.) Web Interface

Connecting to the 9070-CSWO/CSO

Once the 9070-CSWO/CSO has been setup correctly and access your IP Kamera 9070-CSWO/CSO. An Internet Explorer browser screen pop up with the login screen.

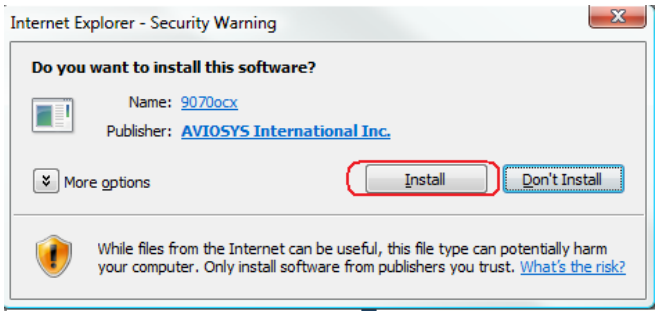


Default IP: 192.168.1.168 (When 9070 is connected to PC directly)
Default Login: Admin
Default Password: 12345678

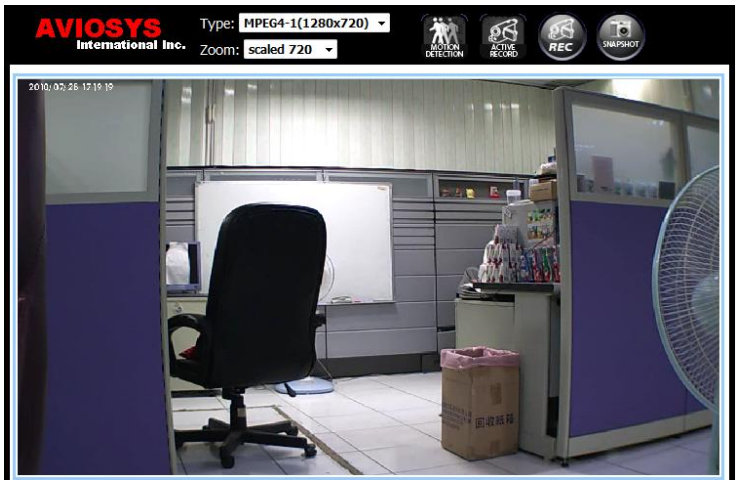
1.) Once you have logged into the device you will be required to install active x controls.

2.) Right click on yellow bar and install the activeX controls.

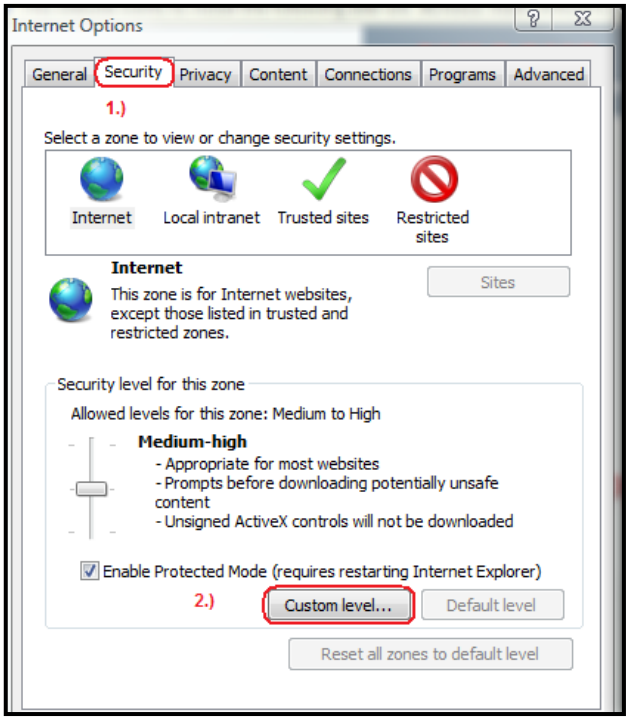
3.) Then click the install button and install the active controls.

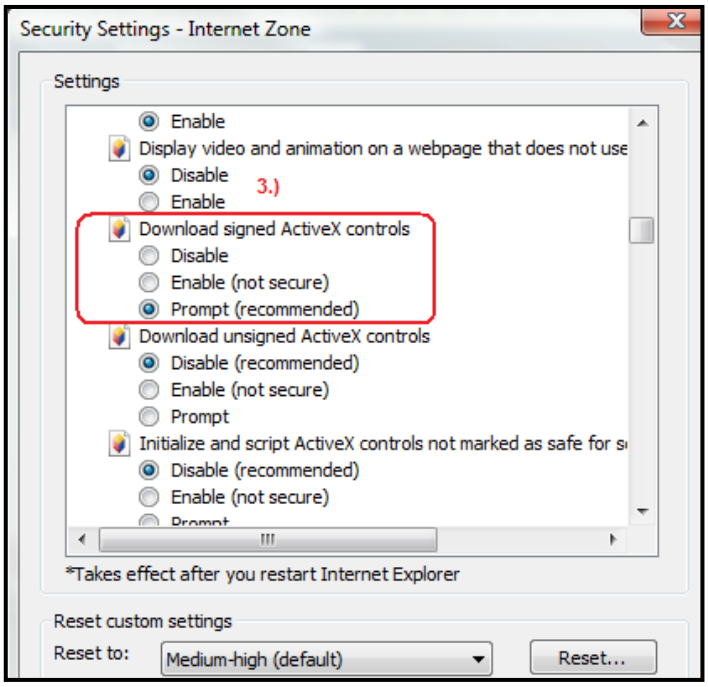

Internet Explorer - Security Warning
Do you want to install this software?
Name: 9070ocx
Publisher: AVIOSYS International Inc.
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

4.) Once active X controls have been installed the video feed will show on the screen

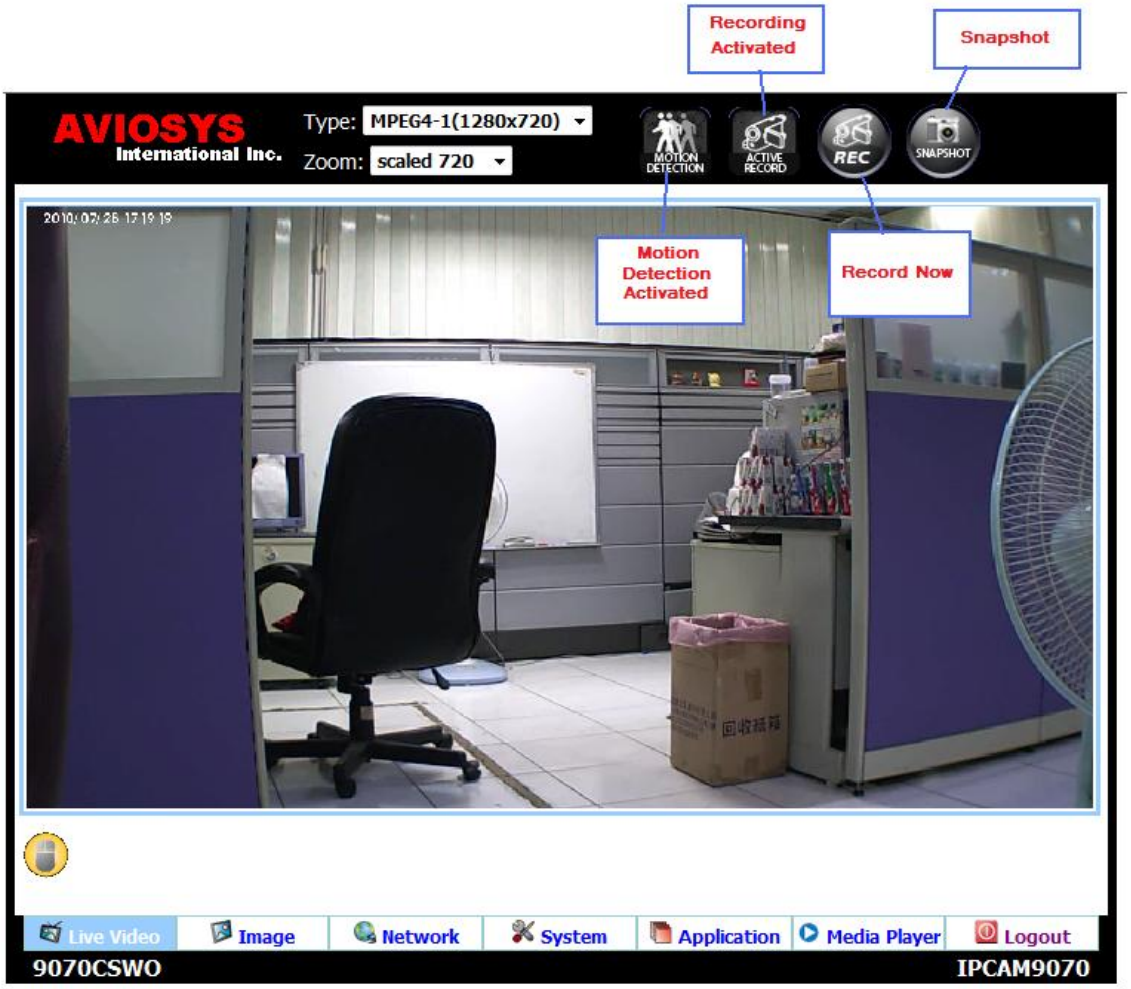


Note: If there is no active X controls that are showing up, please go to internet explorer and enable active X controls.





Web Console



The IP Kamera 9070-CSWO/CSO Control Console starts in the Live Video Section of the webpage. In this section navigate to the other options and settings of the 9070-CSWO/CSO

Live Video
Live Video: The Live Video section allows the user to view the camera, change resolution views,

Image
Image: The Image section allows you to edit the image settings, including recording / viewing codec, frame rate, image tuning, brightness, contrast, saturation, and etc.

Network
Network: The network section allows you to change the devices network settings, ftp settings, smtp (email) settings, sntp settings, and IP service settings.

System
System: The system section allows you to change the devices date and time, set time stamp for video, users, audio settings, update, event log.

Application
Application: The application section allows you to change the video recording format, ftp storage settings, SD Card settings,

Media Player: The Media player can directly access the files in the built in memory. Each video file & picture can be accessed here and streamed through the internet.

Logout: After using the 9070, the user can click on the Logout feature to ensure that no one else can see the IP Kamera without a login or password. Please do not forget to log out after each use.

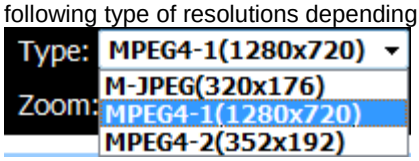
Live Video

The Live video section of the IP Kamera 9070 is where you will live view the video of the device. From here you can change resolution, record onto current pc, take a snapshot, zoom, and detect motion detection.

Type and Zoom

Type:

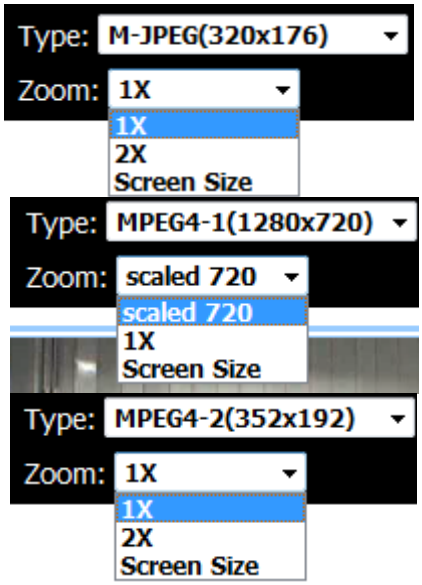
The type function allows you to set the streaming format for the IP Kamera 9070. You can select from the following type of resolutions depending on the format type you have set in the image settings.



M-JPEG (320 x 176)
MPEG4-1 (1280x720)
MPEG4-2 (352x192)

Zoom:

The zoom function allows you to select the screen size of the stream. Depending on the type that you have selected there will be different zooms that will be available.



1X zoom: The 1X zoom is the normal view for each type.

2X zoom: This 2X zoom is 2 times the normal view for that type.

Scaled 720: Is a resolution only available in MPEG-4-1, which sets the picture at 720P.

Screen Size: Will enlarge the image to the whole size of the screen. This function is very useful when trying to display on larger monitors.

Motion Detection

Motion Detection: The motion detection icon will display when motion has been detected. This setting must be activated in the application section

When no motion is detected the motion detection icons will look like the following.

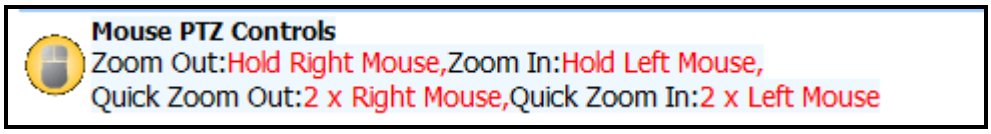
But, in the case that motion is detected and recording has started, the icon will look will light up blue.

Mouse EPTZ

Mouse EPTZ

On the live video screen move the mouse cursor to the video and click left or right click to use the Mouse ETPZ functionality. Here you can easily **Zoom in, Zoom Out, Quick Zoom, Quick Zoom Out**.

The instructions will be displayed on the screen when the mouse if moved over the icon.


Mouse PTZ Controls
Zoom Out:Hold Right Mouse,Zoom In:Hold Left Mouse,
Quick Zoom Out:2 x Right Mouse,Quick Zoom In:2 x Left Mouse

To Zoom In: To Zoom into the picture move the mouse cursor over the picture and click and hold the left mouse.

To Zoom Out: To Zoom out of the picture move the mouse cursor over the picture and click and hold the right mouse.

Quick Zoom In: Quick zoom in is used to quickly zoom into the maximum zoom of the picture. To use this function on the picture double click the left mouse.

Quick Zoom Out: Quick zoom out is used to quickly zoom into the maximum zoom of the picture. To use this function on the picture double click the right mouse.

Active Record

Active Record: Active record will show up when the device is actively recording. Active recording functions like motion detection, scheduler, or an alarm will set off this automatic recording.

When active recording is not activated it will look like the picture below

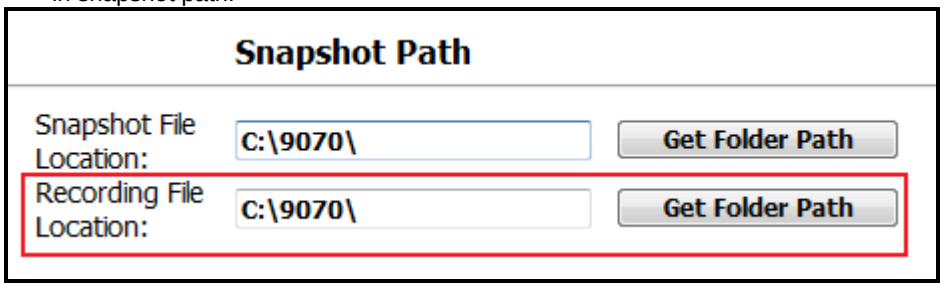
When the active recording function is activated it will light up in red.

Record

Record: The record button on the 9070-CSWO/CSO when pressed will record the live video feed and save the video into the computer viewing.

To record follow the following steps:

1.) Select the recording path that you would like to store the file under in the applications tab in snapshot path.



2.) Click on the record button

3.) Once the folder has been selected the device will start to record.

To stop recording click on the red icon and it will return to the original state.

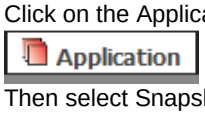
Note: Remember you need VLC codec to play the video files that are recorded

Snapshot

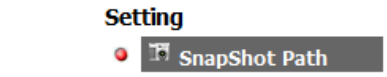
Snapshot: The snapshot function, creates a easy way take pictures of the current view in the IP Kamera 9070-CSWO/CSO.

To setup the snapshot destination folder:

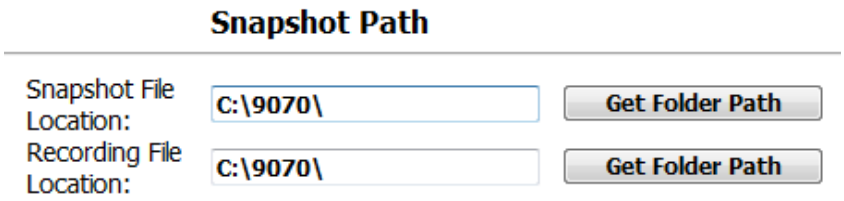
1.) Click on the Application link on the bottom menu



2.) Then select Snapshot path



3.) In here browse for the location where snapshot pictures will be stored. By default the snapshot path will be in C:\9070\



To use the snapshot function:

1.) Click on the snapshot button, and you will see the screen flicker black.

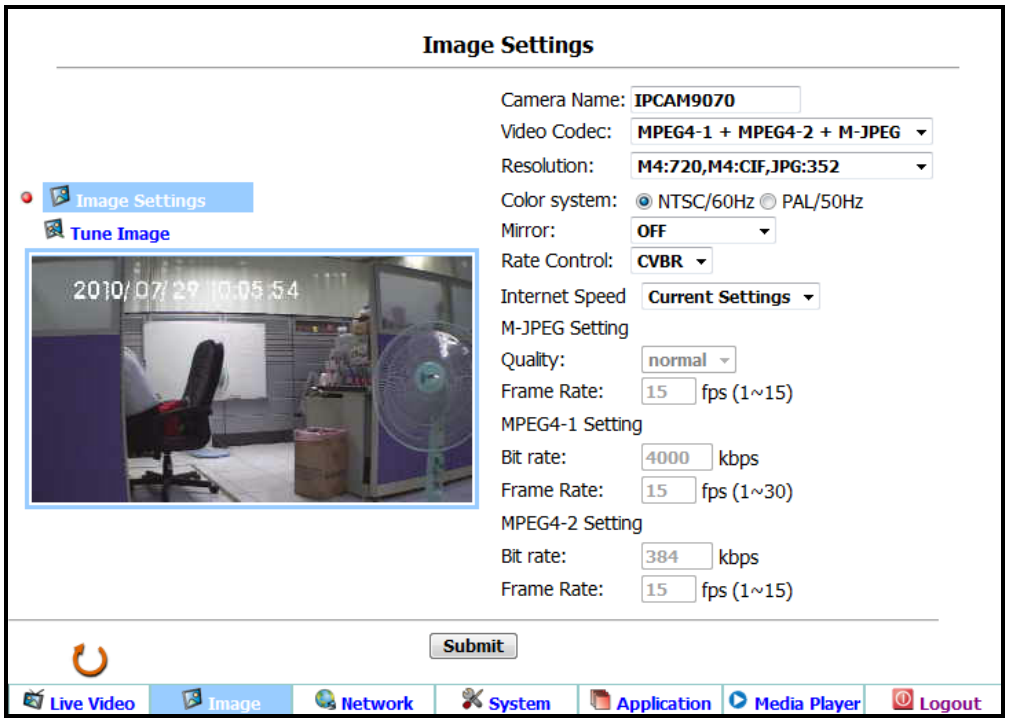
2.) In explorer go to the selected path and the files will be created there.

Image

The image section allows you to change the Image settings for the device and tune the image of the IP Kamera 9070-CSWO/CSO

Image Settings

The Image settings section allows you to change the video settings and the Name of the Kamera.



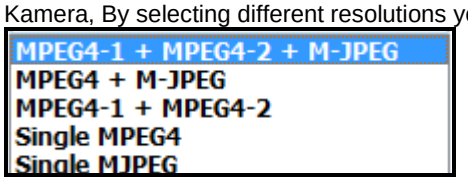
Camera Name:

Select a camera name for the device and then hit submit

Camera Name: IPCAM9070

Video Codec:

The Video Codec sections allows you to select different the types of codec you would like to set your IP Kamera, By selecting different resolutions your



Resolution:

In the resolution section you can select from the following options.

Resolution	
(MPEG4+MPEG4+JPEG):	M4:720P,M4:CIF,JPG:352
(MPEG4+M-JPEG):	M4:VGA,JPEG:VGA M4:720P, JPG:720
(MPEG4-1+MPEG4-2) **Not supported in Firefox**:	M4:720,M4:CIF
(Single MPEG4):	M4:720
(Single MJPEG):	M4:720

Color System:

Select the broadcasting color system that pertains to your country.

NTSC/60Hz
PAL/50Hz

Each country has their TV broadcasting standard, please check with your local service provider to find out if you us a NSTC system or PAL system.

Mirror:

The mirror function allows you to flip the image of the device around. Depending the direction and the way the camera is mount you can use this setting to change the angle of the picture. Please see below for more details.

Normal View:

Normal View	*Horizontal View*	*Vertical*	*Both*

Rate Control:

Select the Bit Rate Control that fits your needs.
CVBR: Constrained Variable Bit Rate
CBR: Constant Bit Rate

Internet Speed:

The Internet Speed settings allows you to choose some preset settings to best fit your current internet speeds. From here you can select from the following options:

Cable / ADSL: Most high speed internet users today use Cable / ADSL as the main internet provider line.
Fiber Optics: High speed fiber optics provides the best solution for outside the network because it is very fast.
Intranet (LAN): When using the IP Kamera from within the network this is the best option.
Custom: This setting allows you to manually input a setting for the Bit Rate, FPS, and picture quality.
M-JPEG Settings: The available Quality settings and FPS for the M-JPEG settings are shown below

M-JPEG Quality Settings
High
Medium
Low

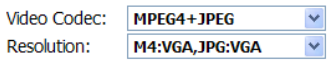
M-JPEG Frame Rate Settings
30 FPS
15 FPS
7.5 FPS
3 FPS
1 FPS

MPEG4-1
Bit Rate: Select a value from 64~8000.
FPS: Select a FPS from 30fps, 15fps, or 7.5fps

MPEG4-2
Bit Rate: Select a value from 64~8000.

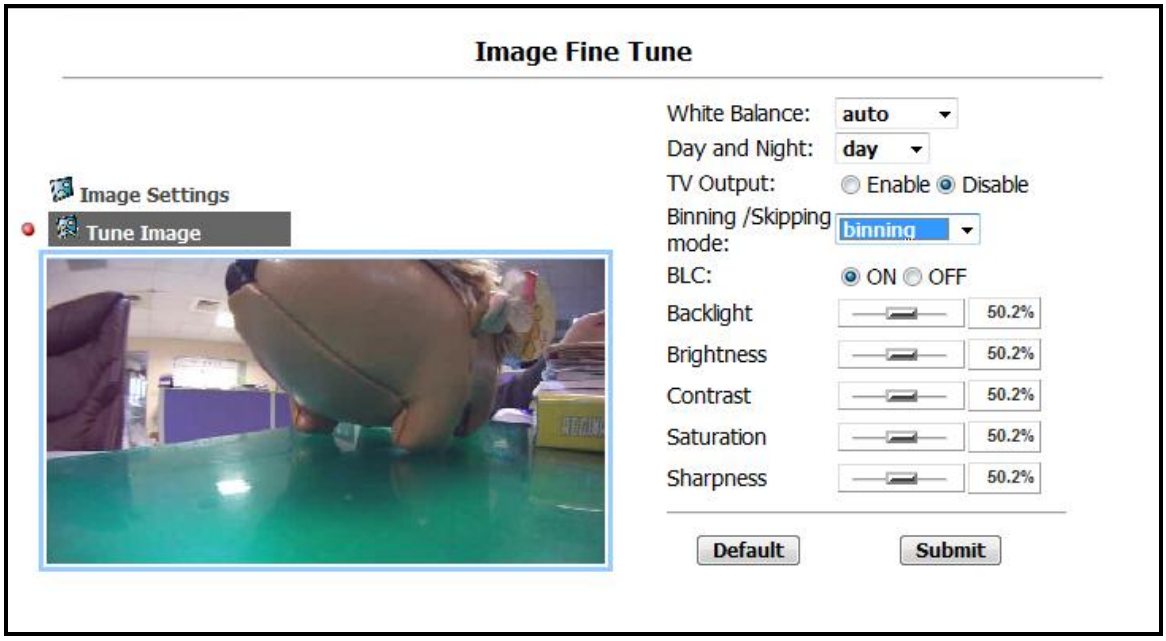
FPS: Select a FPS from 15fps or 7.5fps

Note: PTZ is only available in the mode below. When you enable PTZ it will automatically jump into that mode.



Tune Image

The tune image settings section allows you to control and tune the picture quality of the image. Keep in mind, the quality of the picture will also be affected by the quality of the lens that is being used.



White Balance: Select from the following options **auto, indoor, or outdoor**
Day and Night: Select the mode Day or Night
TV Output: Select the mode **enable or disable** to output to a T.V
Binning / Skipping mode: Binning enables low light-light performance. Select Binning, Skipping, 4x Binning mode (default is Binning)
BLC (Backlight control): Select from one of the options on or off to control the
Backlight: Select a value between (0~100%)
Brightness: Select a value between (0~100%)
Contrast: Select a value between (0~100%)
Saturation: Select a value between (0~100%)
Sharpness: Select a value between (0~100%)

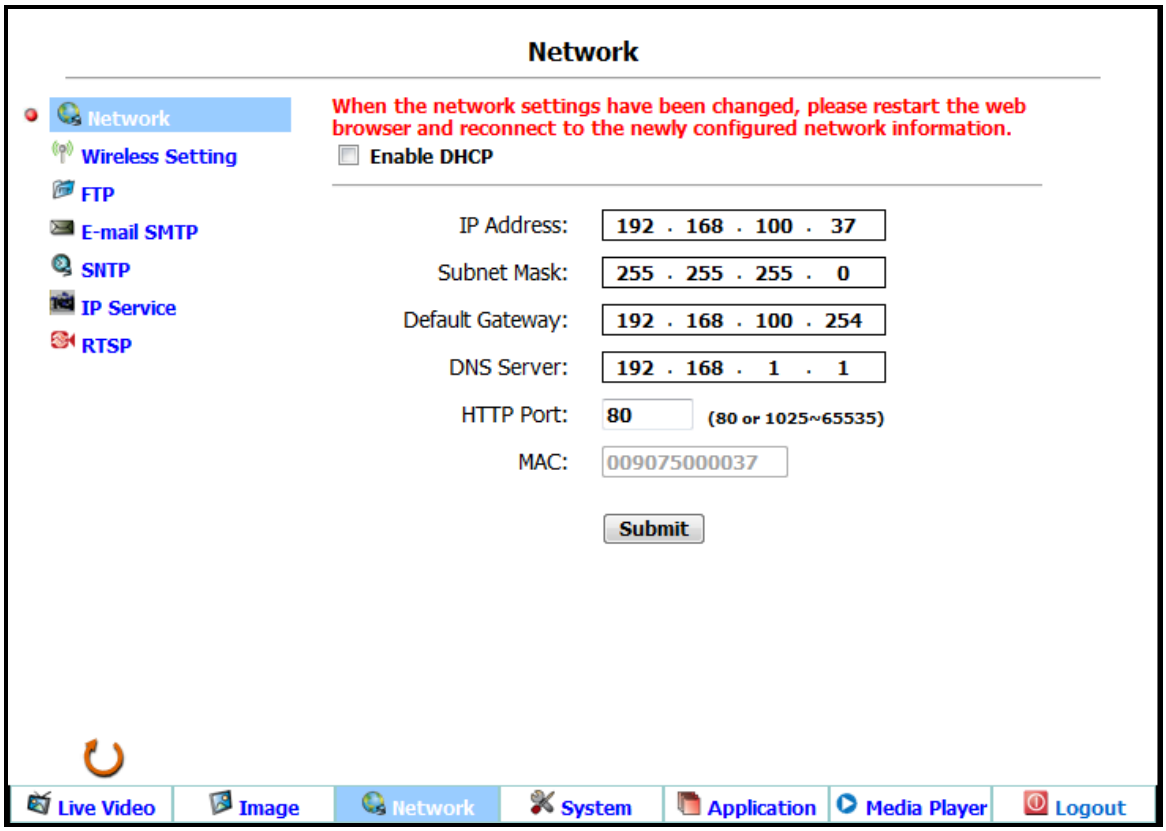
Default: To Return all values to normal default click on this button. Default (Default Values)

Note: Make sure you click on the Apply button to save any changes made Submit

Network

The Network settings section allows the user to setup their network information for the IP Kamera.

Network



The network section allows you to setup the network information for the IP Kamera 9070.

Enable DHCP: This function will enable the DHCP for the 9070CSWO. If this is enabled the IP Address of the device will be automatically provided by the router of the device.

IP Address: The IP Address will be displayed here. To change the IP Address of the device simply change the values and hit submit.

Subnet Mask: Subnet Mask information. By default it is set to 255.255.255.0

Default Gateway: The default gateway address is the address to connect to the router.

DNS Server: Domain Name System Address

Http Port: Enter the port that you would like the 9070 to connect on.

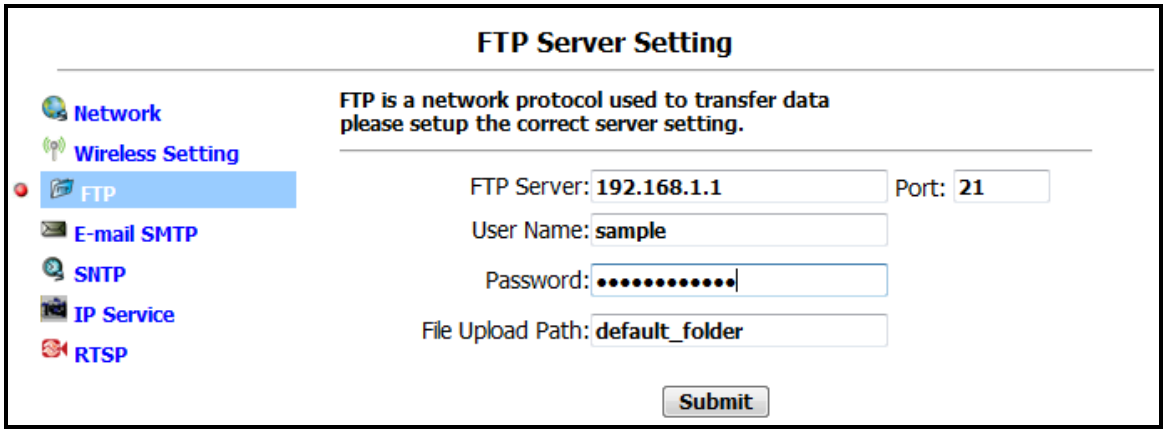
MAC: The Mac Address or physical address of the device

Note: Make sure you click on the Apply button to save any changes made

Wireless Settings

The wireless settings section will allow you to setup the wireless feature of the 9070-CSWO. Please refer to page 18 or Setting up wireless section for more details.

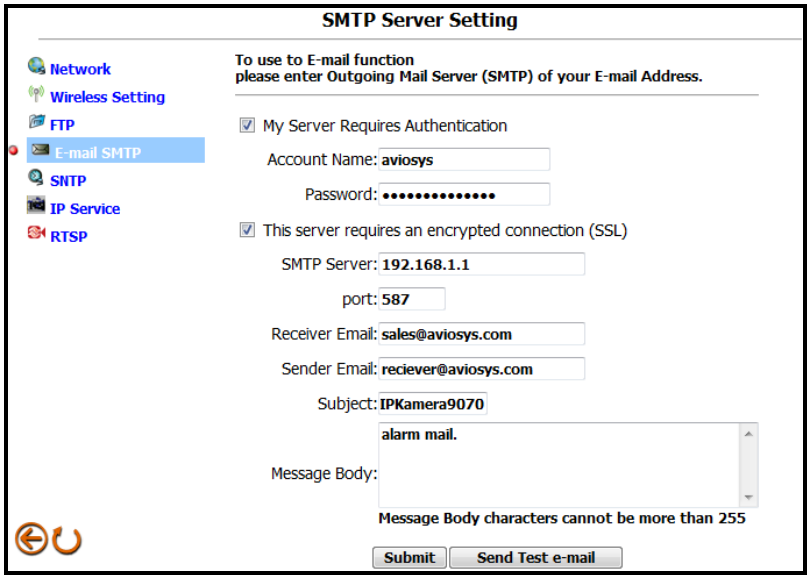
FTP



The FTP section of the IP Kamera 9070 allows you to save video clips

FTP Server: The FTP server address is where the IP Address of the FTP server will be entered.
User Name: Enter the FTP Username
Password: Enter the FTP Password
File Upload Path: Enter the upload path of the FTP Server

SMTP (Outgoing E-mail Server)



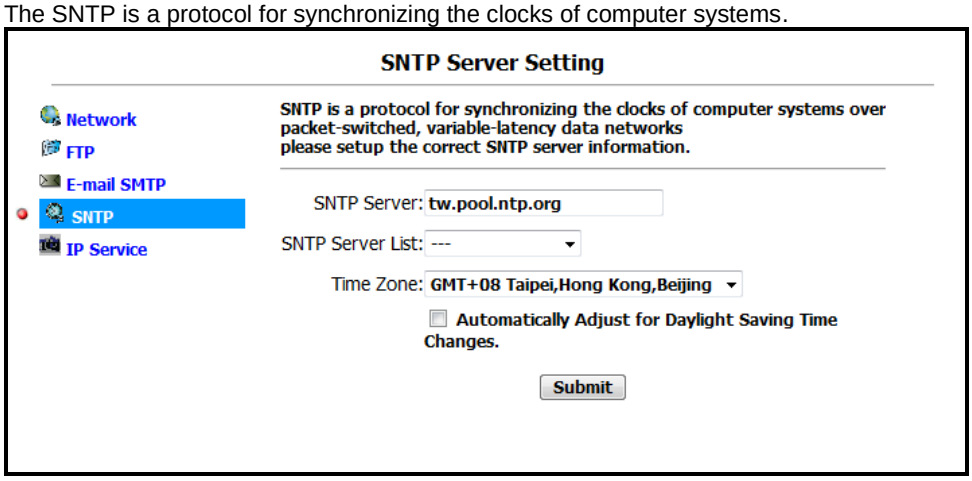
Enter the SMTP E-mail server information here. The SMTP section allows the 9070CSWO to send emails out using the SMTP settings.

My Server Requires Authentication: Some servers require SMTP Authentication for security purposes. If your email server requires this option, make sure to have this section checked.
Account Name: Enter then login of the mail account
Password: Enter the password of the E-mail account
Use SSL Connect: If the email server requires SSL (Secure Sockets Layer) this option need
Sender Email: Enter the Sender Email Address
SMTP Server: Enter the SMTP Outgoing mail address
Email Address: Enter the Receiving Email address
Submit: After all settings have been made. Hit the submit button to save all changes.
Send Test E-Mail: This button will send a test e-mail to the designated account. This way, you can check to make sure that the settings are correct.

Note: If you are having problems sending emails out and the settings are correct. Please check your DNS Server address to make sure you can send email out.

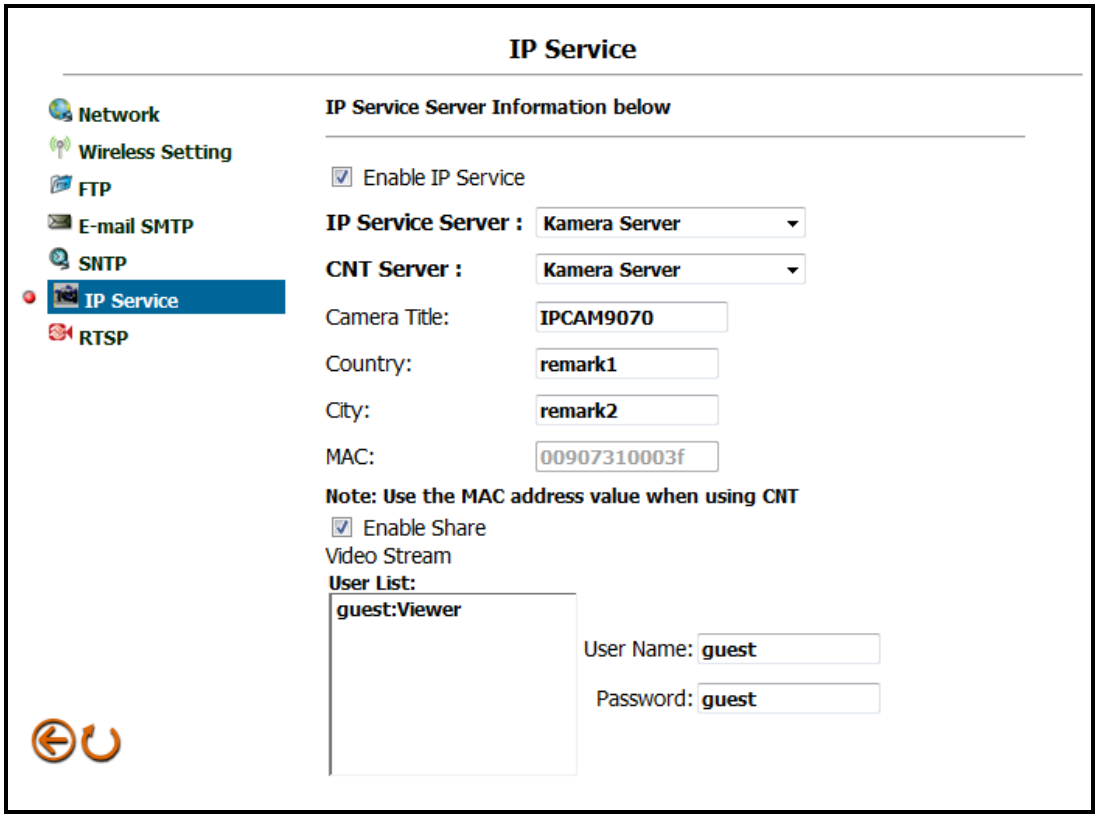
SNTP

The SNTP is a protocol for synchronizing the clocks of computer systems.


SNTP Server Setting
Network
FTP
E-mail SMTP
SNTP
IP Service
SNTP is a protocol for synchronizing the clocks of computer systems over packet-switched, variable-latency data networks
please setup the correct SNTP server information.
SNTP Server: tw.pool.ntp.org
SNTP Server List: ---
Time Zone: GMT+08 Taipei,Hong Kong,Beijing
Automatically Adjust for Daylight Saving Time Changes.
Submit

SNTP Server: Enter the SNTP server address. Below are a list of free public NTP servers.
Europe — europe.pool.ntp.org
Asia — asia.pool.ntp.org
Oceania — oceania.pool.ntp.org
North America — north-america.pool.ntp.org
South America — south-america.pool.ntp.org
Africa — africa.pool.ntp.org
Time Zone: Enter the corresponding time zone
Automatically adjust for daylight saving time: Check this section if you want daylight saving time to be implemented automatically.

IP Service

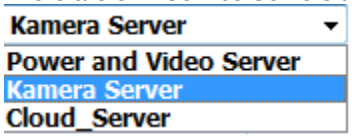


IP service is a added service that provides you a platform so you do not remember a long IP Address. Just enter the name of your device into IP Service and you can find your device.
Note: *Port forwarding will be required on your router to connect to the device*

In this section you can to turn off/on this service as well as select which server you would like your device on. .

Note: *IP Service is set to ON by default. To close this feature, uncheck the enable button.*

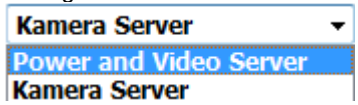
IP Service Server:
There are 3 IP Service Servers that can be selected from:



Power and Video Server: This is the server where most IP Power products and IP Video server products can be found.

Kamera Server: This is the IP server where most IP Kamera products from Aviosys will be found on.

CNT Server: Cross Network Technology Sever. CNT allows user to connect to their IP Kamera without having to Port Forward to the device.



Camera Title: This is the name of the device.
Country: The country where the device is located.

City: The city where the device is located.
MAC: Physical address or MAC of the device.

Once you have setup IP Service you can connect to IP Service through software IP Edit Search tool or through www.myIP Edit .com

Enable Share:

Check this feature to enable video sharing on guest accounts only. Make sure that the guest account has already been created in the user section. Once this section has been made you can come here to verify that
Note: This function is for IP Surf Pop software.
Please refer to the IP Surf Pop manual for more information at www.Aviosys.com

RTSP

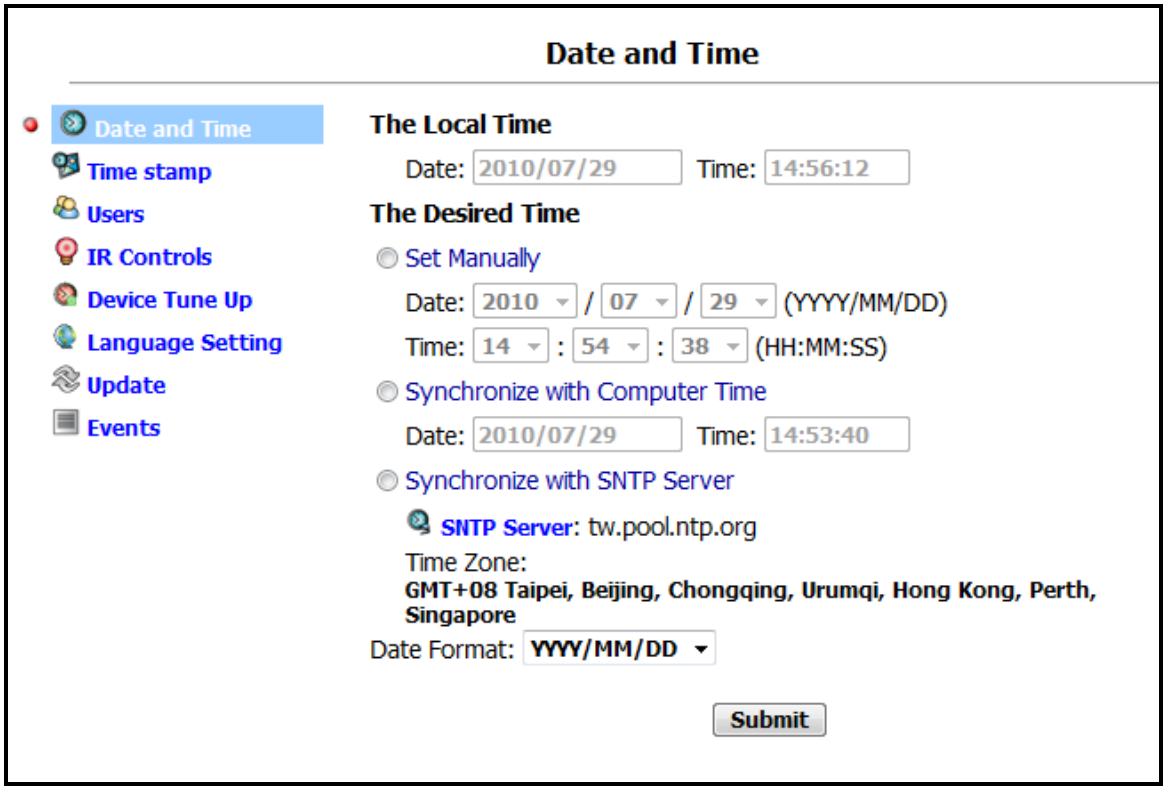
Real Time Streaming Protocol (RTSP) gives the device another way to stream live video. Using programs that support RTSP, you can broadcast the videos from the 9070 live.

Note: To access the device from outside the network. Please make sure of the following:

9070 should be set to DMZ host,

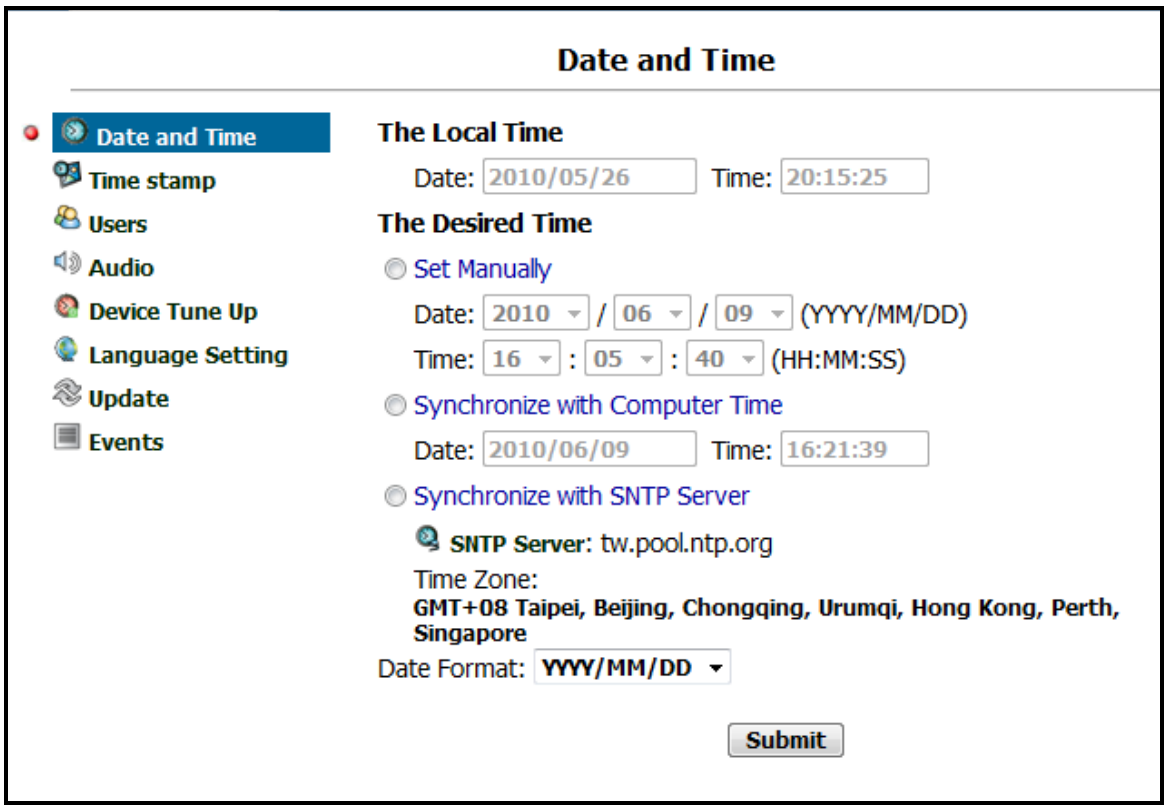
or mapping router's TCP ports 554 and 8554 to 9070, preferably at the same time mapping UDP port 6970-9999

System



The system section allows you to setup the IP 9070's system configurations. This includes the following

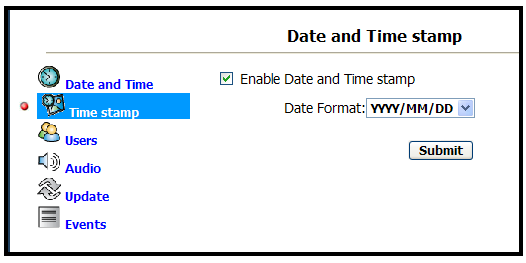
Date and Time



Set the date and Time of the device here.
The Local Time: The local time corresponds to the current time of the IP Kamera 9070.
Time Setup: Setup the current time of the device here

1.) **Set Manually**: Set the time manually
2.) **Synchronize with Computer Time:** Synchronize the time with the current computers time
3.) **Synchronize with SNTP:** Synchronize with SNTP

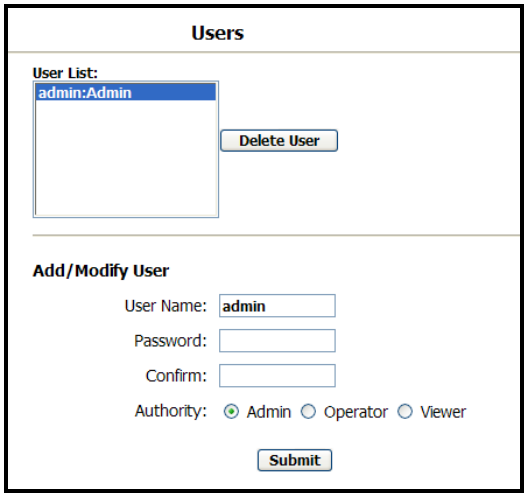
Time Stamp



The time stamp adds a time to the live video.
When a recording is made a time stamp will show up with in the video file that is being recorded.

To enable the Time Stamp please check the enable box.

User



In this section, you can create different user access rights for different types of users.

Authority: Select one of the following options:

Admin: You can operate all functions in Web interface. Also, you can add or delete any user's account.

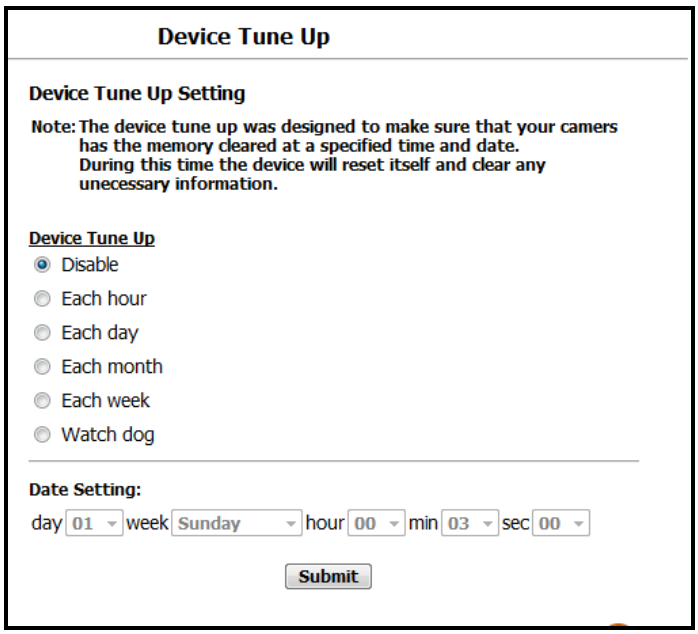
Operator: You can operate all functions in Web interface except user Add/Delete.

Viewer: You can only monitor the Web interface, but cannot operate all function and set parameters.

Night Vision

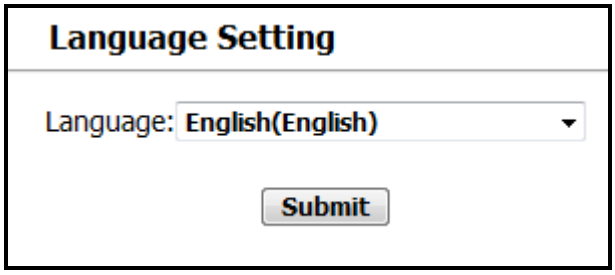
The IR controls allows the 9070CSWO's IR cut filter to switch to on. This means if you have an IR light stand out, the 9070CSWO can use the night vision or Infrared mode.

Device Tune Up


Device Tune Up
Device Tune Up Setting
Note: The device tune up was designed to make sure that your camers has the memory cleared at a specified time and date. During this time the device will reset itself and clear any unecessary information.
Device Tune Up
Disable
Each hour
Each day
Each month
Each week
Watch dog
Date Setting:
day 01 week Sunday hour 00 min 03 sec 00
Submit

The device tune up resets the 9070 to make sure that the device is running smoothly. This resets the internal memory of the device by restarting the 9070. You can set the Device tune up to reset each hour, day Month, or Week

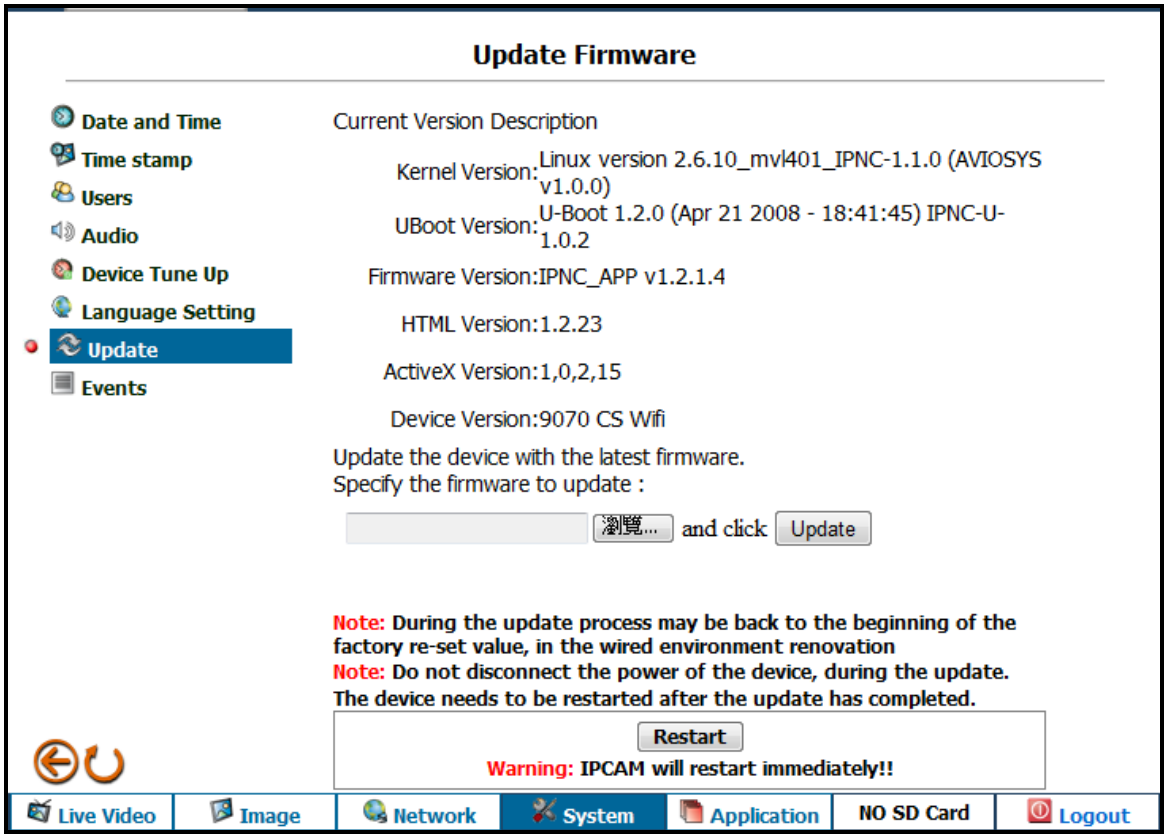
Language Settings



The language setting section is where you can select the language that you would like to use to use the 9070. Currently there are 3 languages available: English, Chinese (Traditional), Chinese (Simplified).

The 9070 will automatically detect the favored language of choice depending the settings used in Windows.

Update



The Update Firmware section is where information on the 9070 is displayed.

The **Kernel Version**, **Uboot Version**, **Firmware Version**, and other technical information on the device is displayed here.

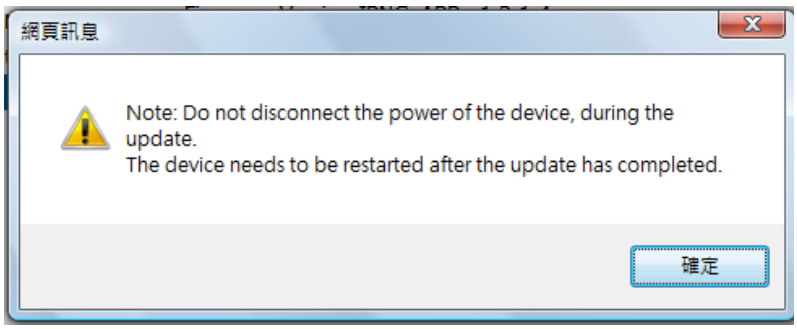
Updating the Device

To update the device go to the update section. Here you will find the Current Version description.
To update the device:

1.) Browse for the correct update file.

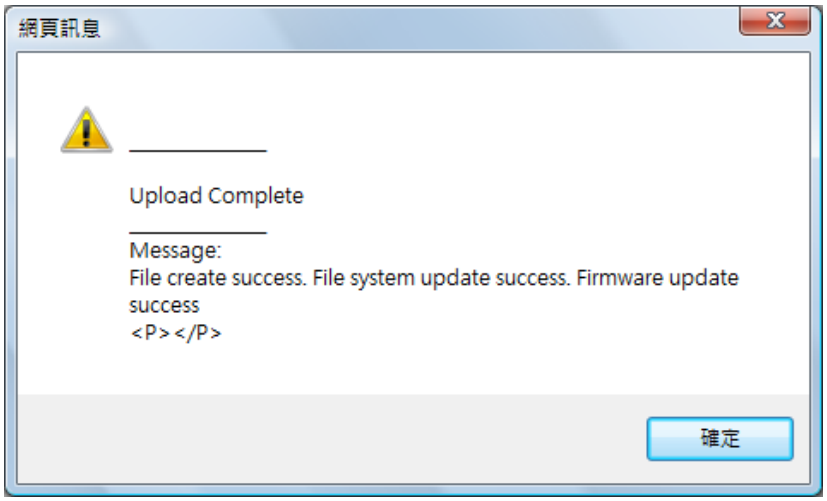
2.) Hit the update button.

3.) A message will appear, reminding you not to disconnect when updating.


網頁訊息
Note: Do not disconnect the power of the device, during the update.
The device needs to be restarted after the update has completed.
確定

4.) Please wait for the loading circle to finish, and wait for an update confirmation page.

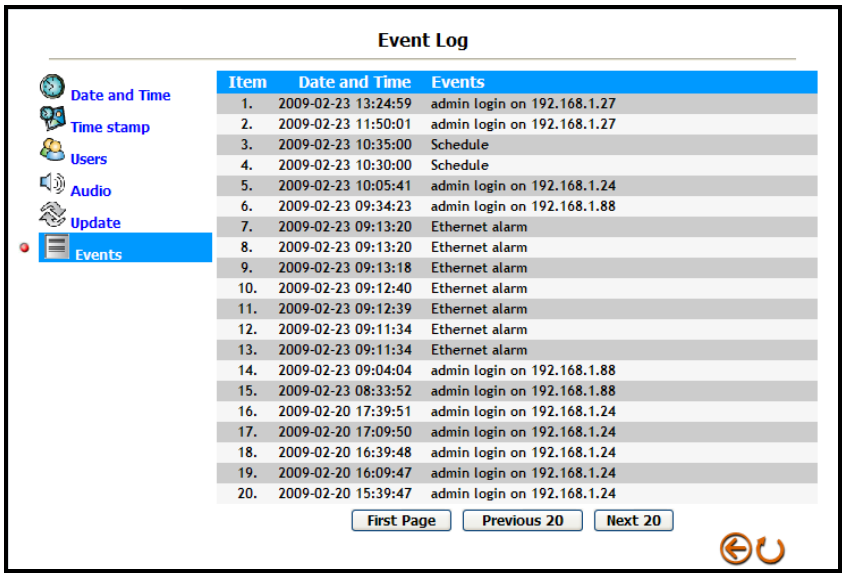
5.) Once the device is updated you will see a update confirmation and click okay.



Warning: Before you go to the next step make sure you have all your setting information written down. The device will reset back to manufacturers default values after you restart the device. You will need reconfigure the IP Kamera 9070, including Email, FTP, IP Address, Gateway, and etc.

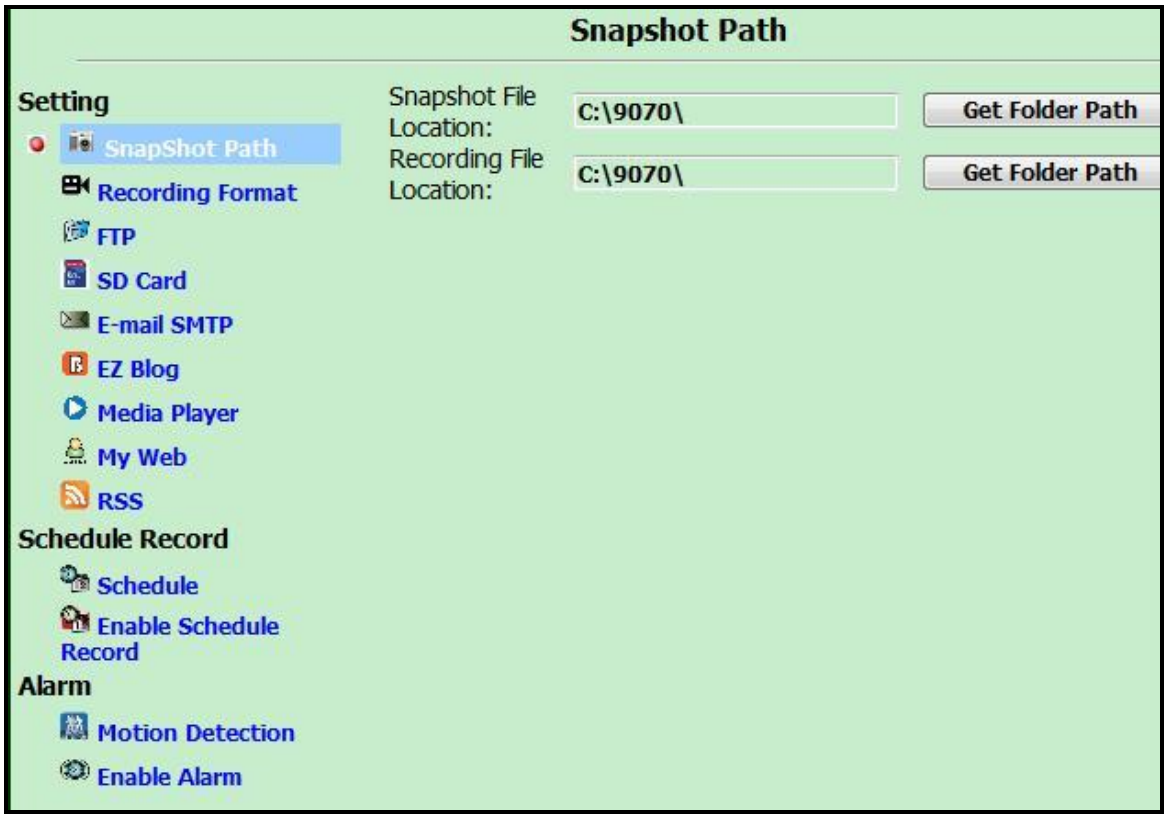
6.) Unplug the device then plug it back in.
7.) Then make sure you re-setup the device.

Event Log



In the Events Log section you can find the log for the IP Camera. This section will notify you any events that have taken place with the IP Kamera.

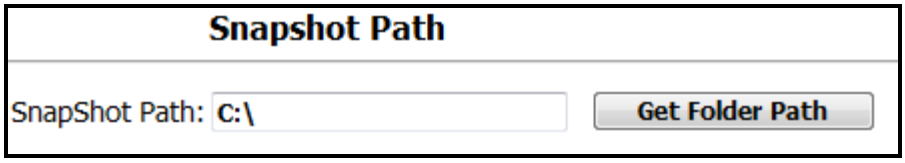
Application



The Application Section allows you to setup the Video File information, FTP, Memory Management, SMTP

Settings

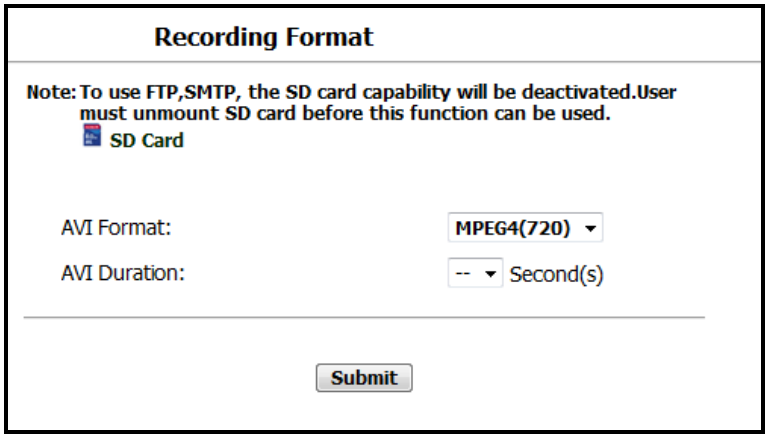
Snapshot Path



The Snapshot path is the location where the snapshot pictures will be saved onto your computer. The default snapshot path will be set to C:\. To select the snapshot path click on the

button and select the folder where the snapshots will be saved.

Recording Format

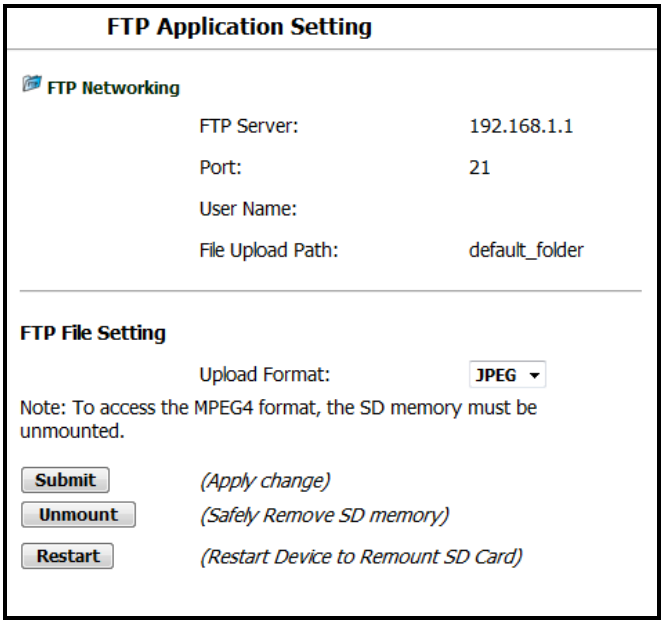


Select the Video File format that the device will record in.

1.) **Avi Format:**
MPEG4 (720) & MPEG4 (CIF)

2.) **Avi Duration:**
From the drop-down list, select the length of an AVI file, then press submit

FTP

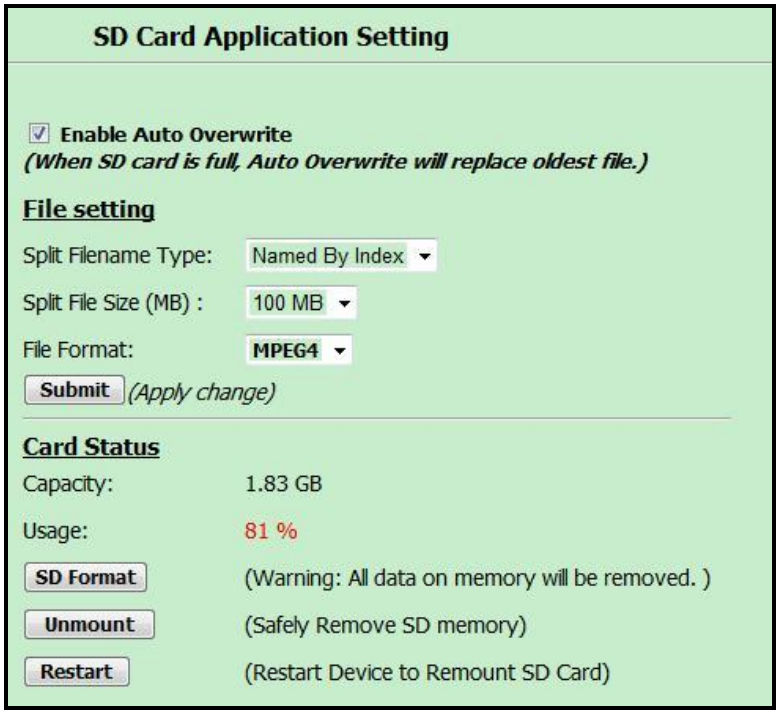


The FTP section allows you to view your current FTP settings. From here you may have to un-mount the SD memory so that you can record in MPEG4 format.

Note:
1.) Before you use the FTP function, you will need to set the FTP server information. You can click on the FTP Networking link to take you to the FTP setup section.

2.) If the SD Card is inserted into the device, the 9070 will only be able to record in M-Jpeg mode to the FTP.

SD Card



File Format: Select the video format that you would like to save into the SD card

Split Filename Type: Select the format that you would like to save the files in the SD card. You can pick from:
Name by Index: Creates file names according to index.
Name by Time: Creates file names according to time.

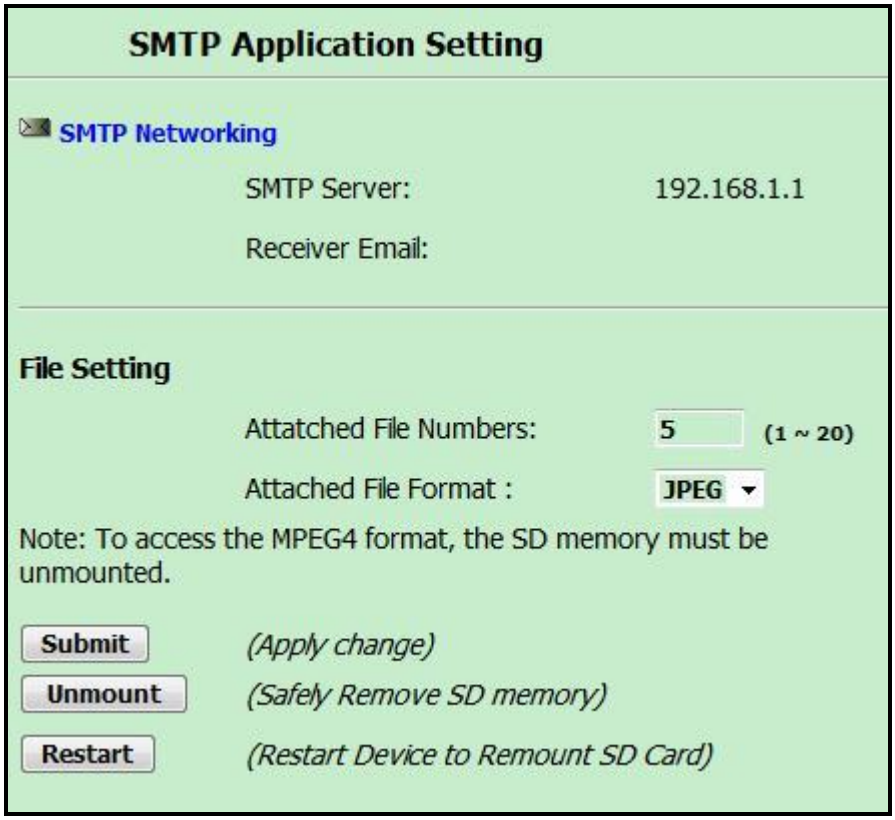
Split File Size: Select the size of each file that will be saved into the SD.
You can select from:
None, 10mb, 25mb, 50mb, & 100mb.

Enable Auto Overwrite: Auto Overwrite allows the device to automatically replace the oldest file on the SD card when it is full.

SD Format: SD format will format the entire SD card SD Format

SD Unmount: Click the SD unmount button when the SD card is being removed this will safely remove the card without any damages. SD Unmount

E-mail SMTP



In the settings section, you can find the SMTP information by clicking on the SMTP tab.
Here you can see the current SMTP Server information and email address.

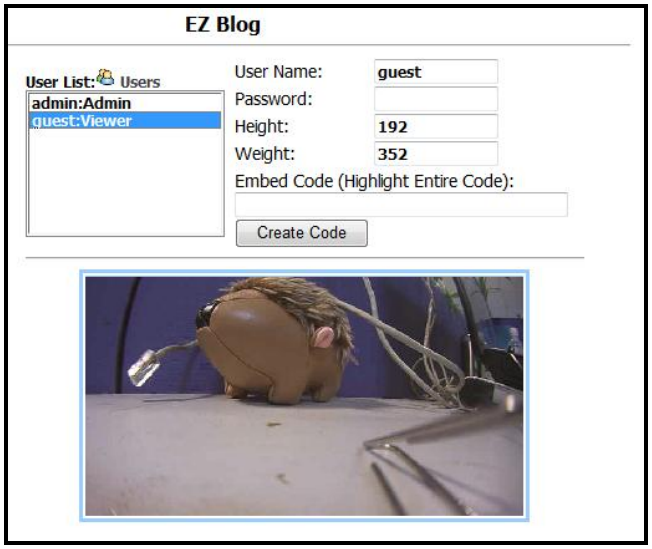
Storage Settings
You can also select the file format in which you would like the IP Kamera 9070-CSWO/CSO to send.
Select from **MPEG4** or **MJPEG.**

EZ-Blog

Note: To use the Ez Blog functionality, please make sure that your device has been port forwarded so that it can be accessed through the internet.

EZ Blog allows you to easily integrate code into your blog which will let you directly stream into your blog, website, and any compatible site. This way you can IP Kamera as more than a regular security camera but also a promotional tool.

Note: Any blog platform that supports javascript can utilize the Ez blog functionality (i.e Blogspot).



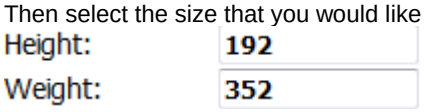
User List: This shows the Users Available to create an Ez Blog link with. Use a guest user account to create the EZ-Blog. You can easily create on by clicking on the User link Users

Setup the Embed Code

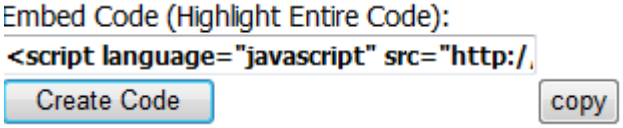
Next step is to setup the Embed Code that will be implemented into your blog, website, etc.

1.) type in the correct password for your login account.

2.) Then select the size that you would like the embedded video to be.



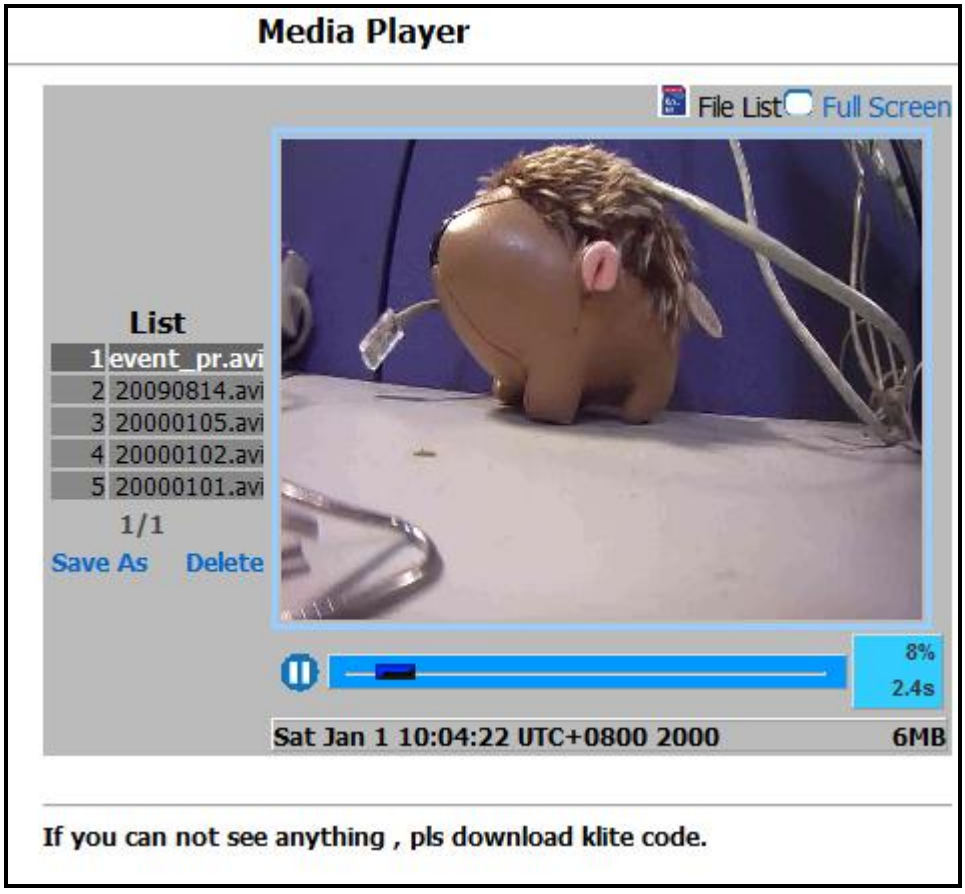
3.) Click on the create code button.



4.) You can highlight the embed code from inside the box and then copying (ctrl + C) or you can just hit the copy button to copy the code.

5.) Once the code has been copied, place that code somewhere in the body of your blog or website and a video will be displayed on the screen.

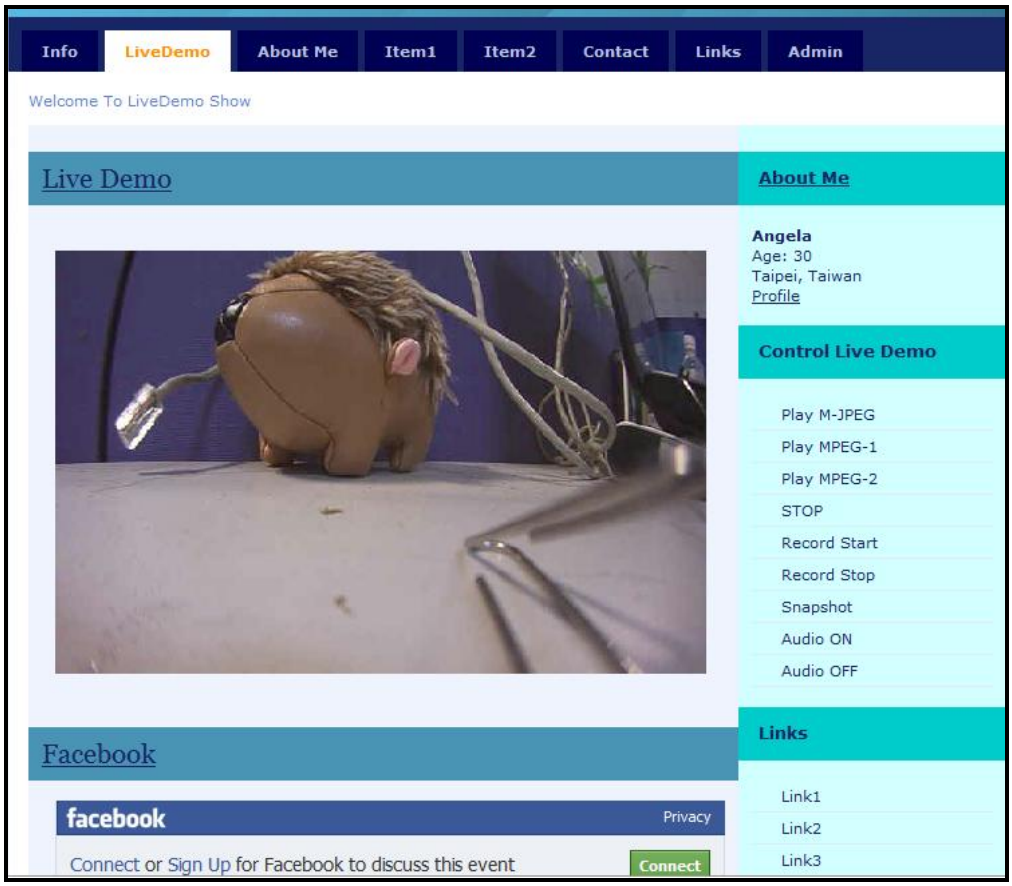
Media Player



The media player allows you to view your recordings on the SD card directly through the internet without requiring downloading the file first. This feature makes it very convenient for live streaming.

View in Full Screen To view the IP Kamera in full screen model you will need to press the Full Screen mode.

My Web

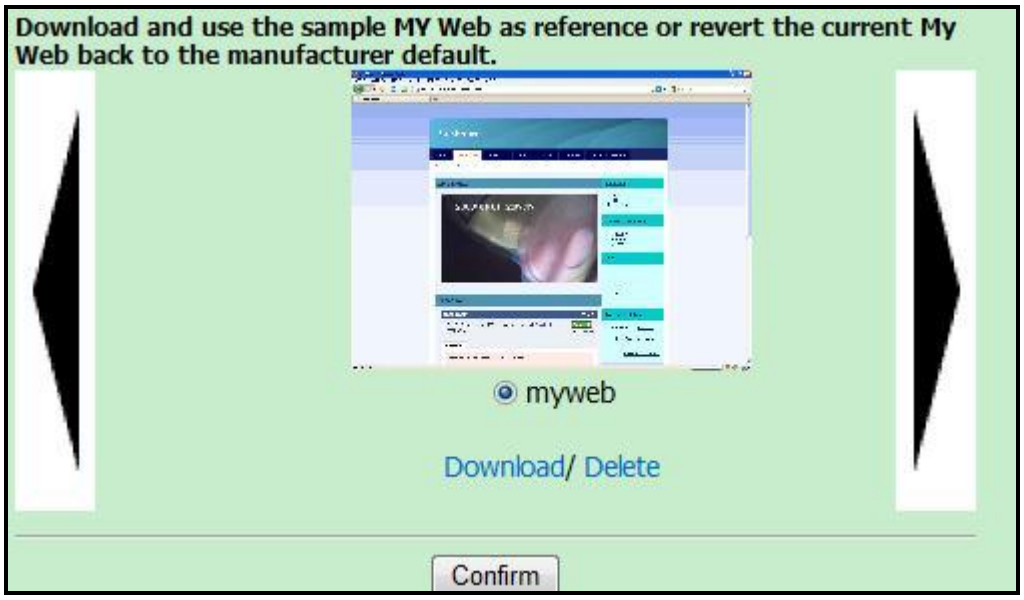


The My-Web functionality will make your IP Kamera more than just a surveillance tool. Now you can use it to promote your company, restaurant, business, school, and etc. With some basic website skills or tools any can make a My Web site.

Turning On My Web

Enable my web button:
The enable My Web button will activate the My Web functionality. Once enabled every time the device is accessed it will be set to the My Web Page.
Login Required:
The login required will require your My Web users to login to the device before being able to use it. This is a way to keep unwanted viewers from entering the My Web

How to use my WEB


Download and use the sample MY Web as reference or revert the current My Web back to the manufacturer default.
myweb
Download/ Delete
Confirm

1. Download sample.
2. Save the zip file to the location .
3. Press browse, and select the zip file you download.
4. Press upload and send the zip file to 9070 web.
5. Confirm setting .

*** If familiar with webpage langrage, you can change the webpage in zip file to your own webpage. ***

Setting up My Web

To setup My Web you can download the My Web file from the 9070.

1.) Click on the Download Default Page.
2.) Save the Zip file to a location where you can edit it
3.) Extract the file functions.js

4.) Start creating a My Web and be sure to include the functions.js into your code. (Note: Do not include folders within the webpage.
5.) After you have created the webpage, make sure to create a Zip file. Zip up the file and

Returning to default My Web page

If you would like to return your 9070 to the default My Web page click the default My Web Page button. This will reset the current My Web to the original manufacturer default.

Using My Web

To use the My Web feature:

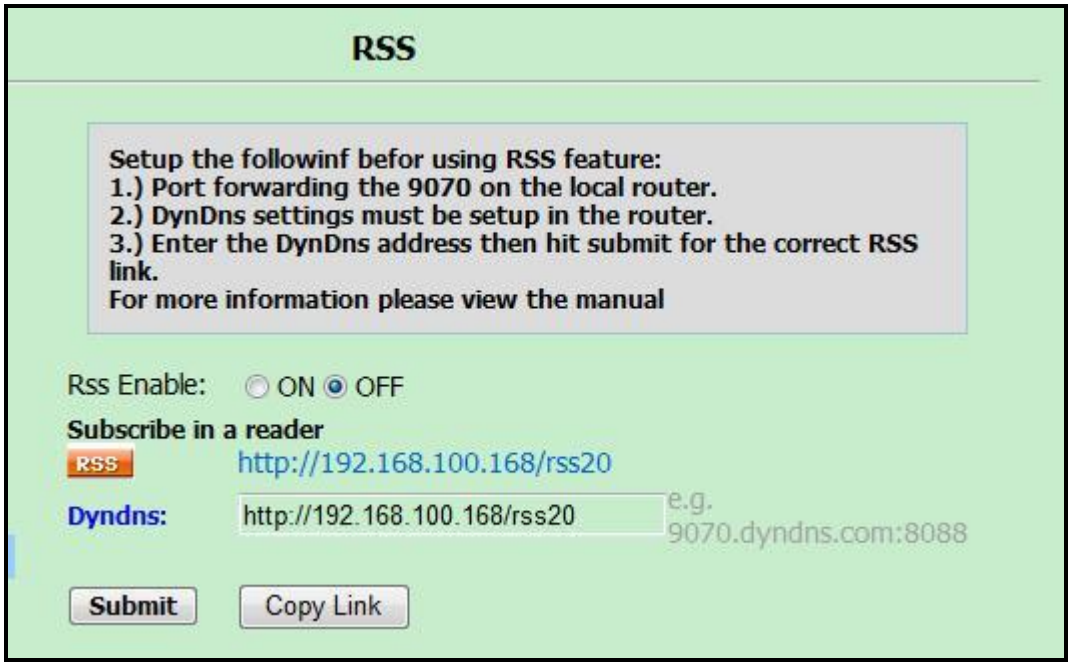
1.) Use IP Edit and directly log into the IP camera.
2.) The device will open the root page of the 9070 to the My Web page.
3.) If you would like to return to the normal administrator page for the 9070 you can login to the admin site.
For Example:

9070 IP Address: 192.168.12.111 **Port**:8080
Then on the web browser type in the following
http://192.168.12.111:8080/index.htm

RSS

Use can get 9070-CSWO/CSO message by RSS as Snapshot, Motion detection , Record as motion

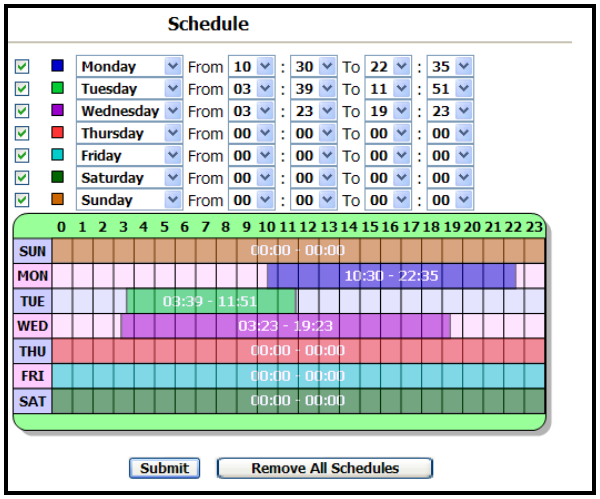
***Notice: User need to register in DDNS ***


RSS
Setup the followinf befor using RSS feature:
1.) Port forwarding the 9070 on the local router.
2.) DynDns settings must be setup in the router.
3.) Enter the DynDns address then hit submit for the correct RSS link.
For more information please view the manual
Rss Enable: ON OFF
Subscribe in a reader
RSS
http://192.168.100.168/rss20
Dyndns:
http://192.168.100.168/rss20
e.g. 9070.dyndns.com:8088
Submit
Copy Link

In the Dyndns section, type in the Dyndns that you register from www.dyndns.com and add a /rss20.

Schedule Record

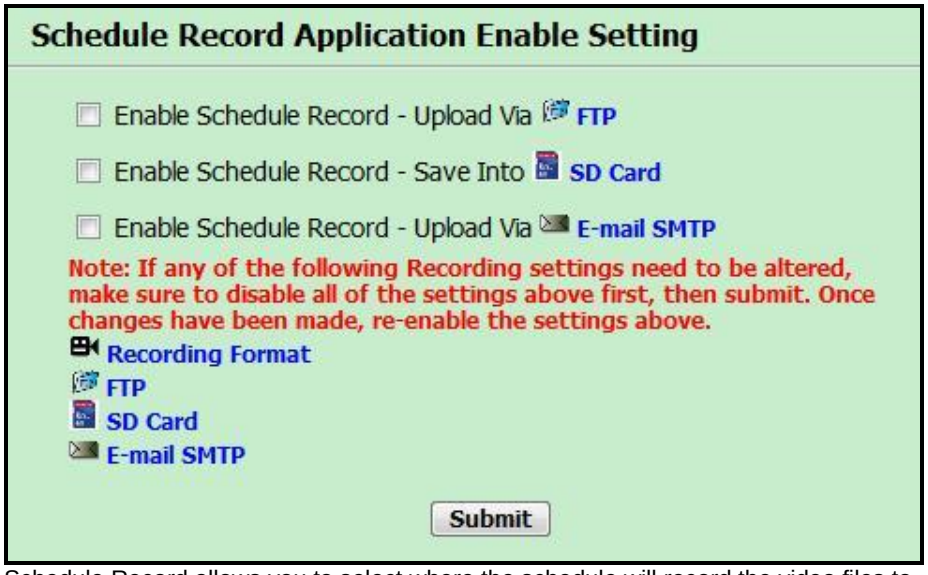
Schedule



The schedule allows you to select days and times that you would like to schedule automatic recording. You can pick a day from (Sunday – Saturday) and also a option for Everyday.
To schedule automatic recording:

1.) Select the day that you would want to start recording.
2.) Select the **From time** and the **To time**.
3.) Once the schedule has been created hit the submit button to apply the new settings.

Schedule Recording

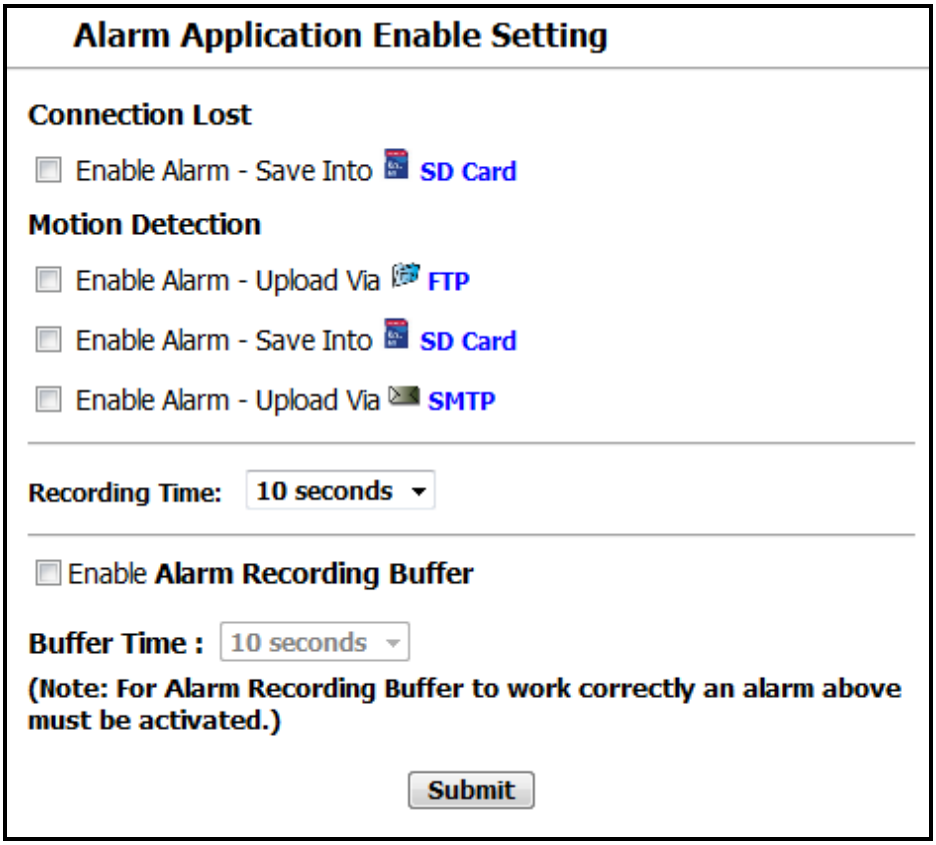

Schedule Record Application Enable Setting
Enable Schedule Record - Upload Via FTP
Enable Schedule Record - Save Into SD Card
Enable Schedule Record - Upload Via E-mail SMTP
Note: If any of the following Recording settings need to be altered, make sure to disable all of the settings above first, then submit. Once changes have been made, re-enable the settings above.
Recording Format
FTP
SD Card
E-mail SMTP
Submit

Schedule Record allows you to select where the schedule will record the video files to.

Schedule Record – Upload Via FTP: Saves schedule recordings into FTP
Schedule Record – Save into SD Card: Saves schedule recordings into SD Card
Schedule Record – Upload via E-mail SMTP: schedule recordings into e-mail

Alarm

Enable Alarm


Alarm Application Enable Setting
Connection Lost
Enable Alarm - Save Into SD Card
Motion Detection
Enable Alarm - Upload Via FTP
Enable Alarm - Save Into SD Card
Enable Alarm - Upload Via SMTP
Recording Time: 10 seconds
Enable Alarm Recording Buffer
Buffer Time : 10 seconds
(Note: For Alarm Recording Buffer to work correctly an alarm above must be activated.)
Submit

Enable Alarm – Lost Ethernet Connection: Save into SD Card:
When Ethernet connection is lost the device will automatically save into the SD card. Saving a backup.

Enable Alarm - Upload FTP
When motion is detected, the IP Kamera 9070 will upload the video file to the selected FTP server.

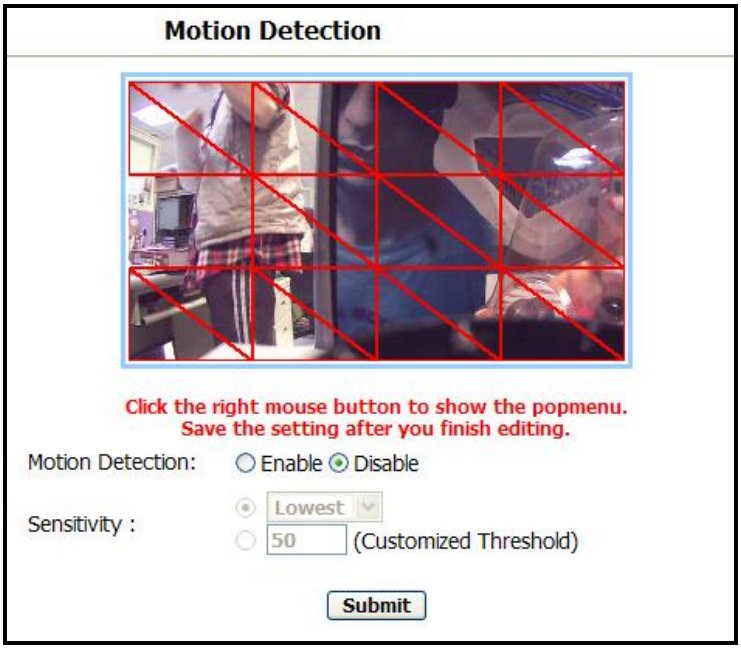
Enable Alarm - Save Into SD Card
When motion is detected, the IP Kamera 9070 will upload the video file to the SD card.

Enable Alarm – Save SMTP
When motion is detected, the IP Kamera 9070 will send the video file to in a E-mail format.

Recording Time: Set the duration of time you would like the IP Kamera 9070-CSWO/CSO to record when alarm is set off.

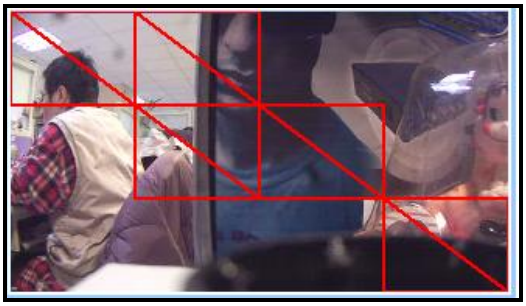
Enable Alarm Recording Buffer: The alarm recording buffer allows the camera to the selected amount of buffer time before an alarm has been detected. This allows the IP Kamera 9070-CSWO/CSO to start recording before any incident has occurred..

Motion Detection



To enable motion detection:

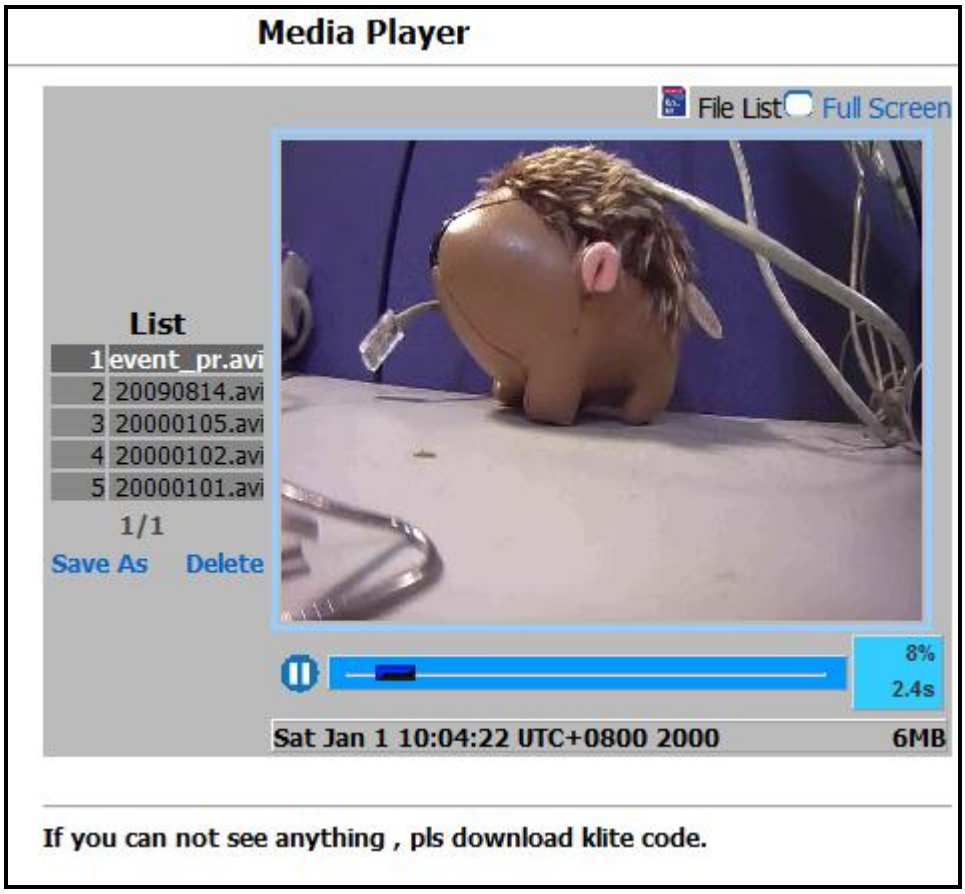
1.) Select Enable in the motion detection option.
2.) Select the sensitivity of your choice
    a. You can pick from Lowest, Low, Medium, High, Highest
    b. You can also customize your own threshold from (1-99)



3.) Once you have set your settings on the window screen click on the picture where you want the motion to be detected. Double click on the selected areas to remove the choice.

4.) You can right click on the window screen for more options
5.) Once your settings have been set hit the submit button to save all changes.

Media Player



The media player allows you to view your recordings on the SD card directly through the internet without requiring downloading the file first. This feature makes it very convenient for live streaming.

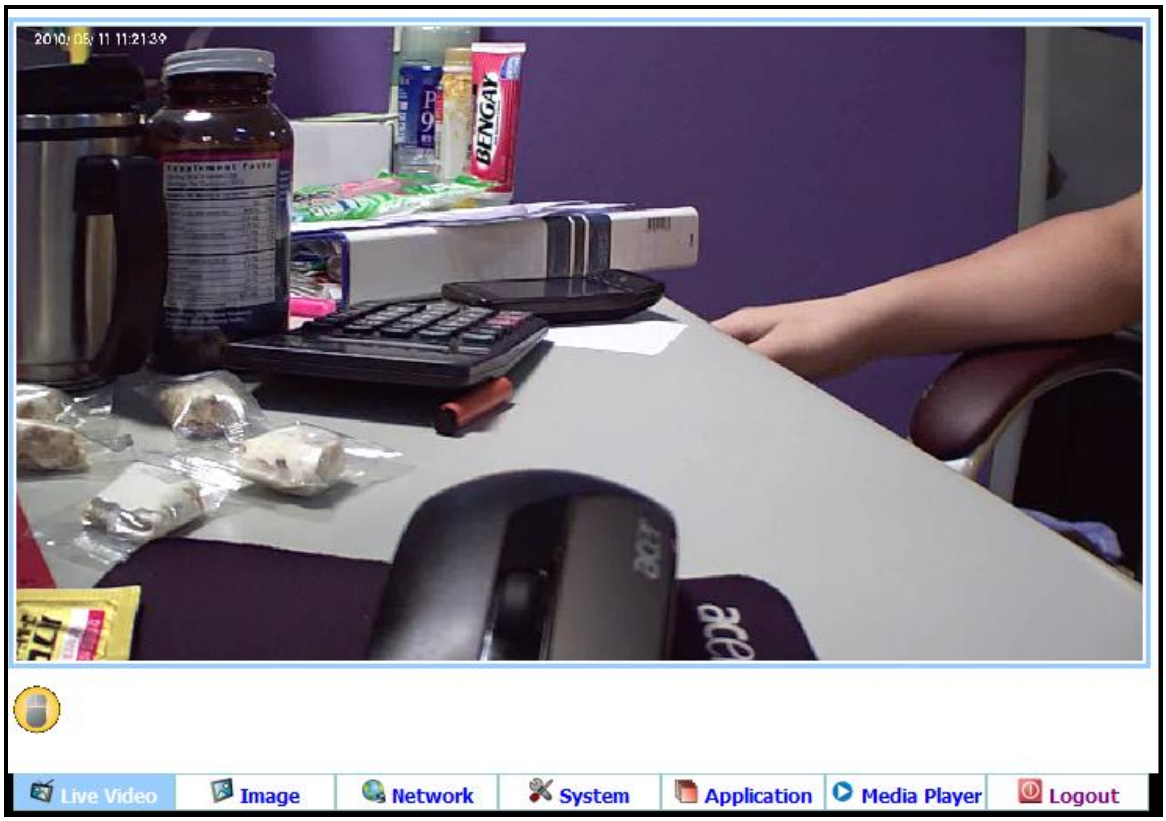
View in Full Screen

To view the IP Kamera in full screen model you will need to press the Full Screen mode.

Logout

When you are done use the IP Kamera 9070 CSWO/CSO the logout function allows you to easily logout of your device. This ensures that anyone who uses the device after you will need to re-login to the IP Kamera.

Simply just click on the logout button on the bottom corner.



7.) Controlling the Device

CGI HTTP Commands

Http commands allow you to control the device with commands. The basic commands are provided below.

There are two ways to input http commands with authorization required
Password in http:
http://login:password@ipaddress:port/command

Password not in http:
http://ipaddress:port/command

Note: If you use the password not in http: command you will need to enter it when the browser asks for the password.

Snapshot Command:

The snapshot command takes a snapshot of the camera in the current view.

http://ipaddress:port/snapshot.cgi

Ex. http command:
http://192.168.100.50:85/snapshot.cgi

Change Name:

This command allows you to change the name of the IP Kamera 9070-CSWO/CSO

http://ipaddress:port/vb.htm?cameratitle=**name**

Ex. http command:
http://192.168.1.192/vb.htm?cameratitle=test_907011

Change IP Address:

This command allows you to change the IP Address of the IP Kamera 9070-CSWO/CSO

http://ipaddress:port/vb.htm?internetip=**ipaddress**

Ex. http command:
http://192.168.1.192/vb.htm?internetip=192.168.1.191

Change Port:

This command allows you to change the Port of the IP Kamera 9070-CSWO/CSO

http://ipaddress:port/vb.htm?httpport=**portnumber**

Ex. http command:
http://192.168.1.192/vb.htm?httpport=1025

Change Subnet Mask:

This command allows you to change the Subnet Mask of the IP Kamera 9070-CSWO/CSO

http://ipaddress:port/vb.htm?subnetmask=**subnetmask**

Ex. http command
http://192.168.1.192/vb.htm?subnetmask=255.255.0.0

Note: Default subnet mask is 255.255.0.0

Change Gateway:

This command allows you to change the gateway the IP Kamera 9070-CSWO/CSO.

http://ipaddress:port/vb.htm?gateway=gatewayaddress

Ex. http command
http://192.168.1.192/vb.htm?gateway=192.168.1.1

Change DNS:

This command allows you to change the gateway the IP Kamera 9070-CSWO/CSO.

http://ipaddress:port/vb.htm?dnsip=dnsipaddress

Ex. http command
http://192.168.1.192/vb.htm?dnsip=168.95.1.1

MJPEG Streaming

This command allows you to integrate streaming data into a software, website, or any other application.

http://ipaddress:port/ipcam/mjpeg.cgi

Ex. http command
http://192.168.1.192/ipcam/mjpeg.cgi

8.) Using RTSP with VLC

Before Setting up VLC: Make sure that the 9070-CSWO/CSO is set to be the DMZ host on the router that you are using, please refer to the routers manual on how to accomplish this.

How to setup VLC media player & Open a network stream

Real Time Streaming Protocol (RTSP) gives the device another way to stream live video. Using programs that support RTSP, you can broadcast the videos from the 9070 live.

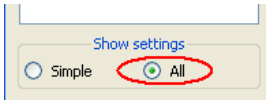
Note: To access the device from outside the network. Please make sure of the following:

9070 should be set to DMZ host,

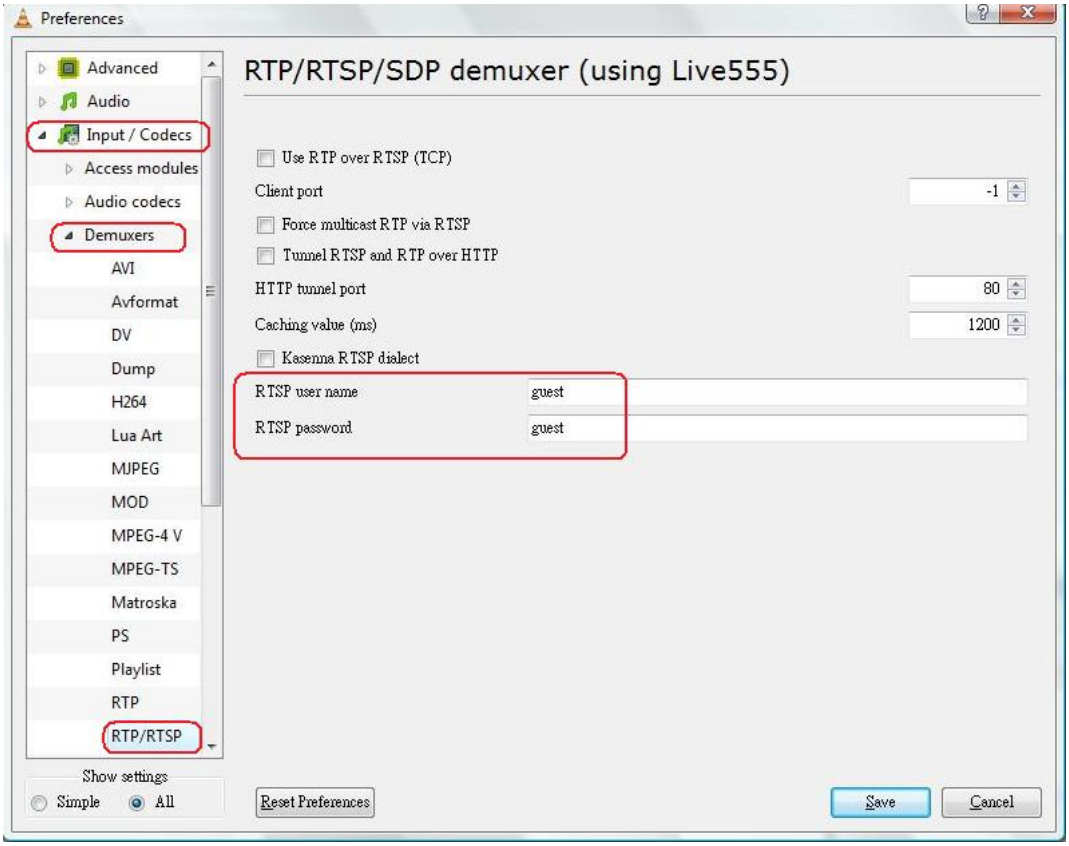
or mapping router's TCP ports 554 and 8554 to 9070, preferably at the same time mapping UDP port 6970-9999

1.) Open VLC media Player
2.) Click on Tools > Preference
3.) On the bottom of the screen click the Reset preference button.

4.) On the bottom left hand side of VLC select the all under the show settings area.



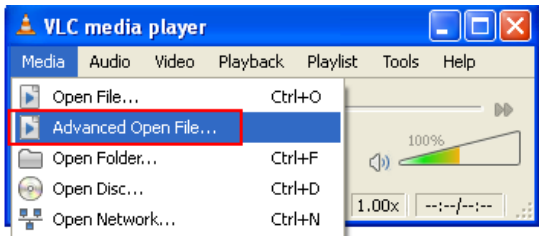
5.) Then in the left panel select Input / Codecs > Demuxers > RTP/RTSPl and type in the **RTSP user name** and **RTSP password.**



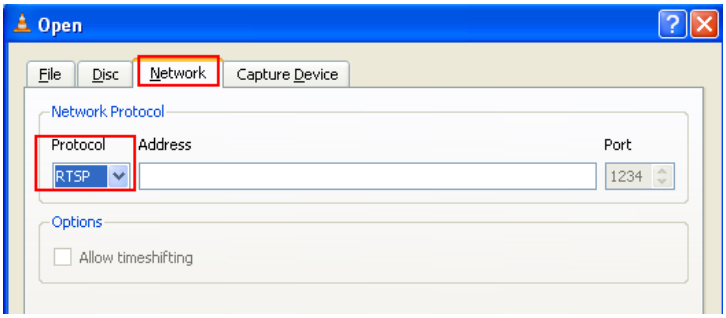
6.) Check the Cache value. *For low latency, it should be 70~80 based on PC's performance.*
Note: If the video is not smooth, set the caching value from 150~1200. This problem could be due to too much congestion, busy pc, and etc.

7.) Save the new settings

8.) Then go back to the VLC media player and go to Media > Advance Open File



9.) Next select the network tab and under the protocol select RTSP.

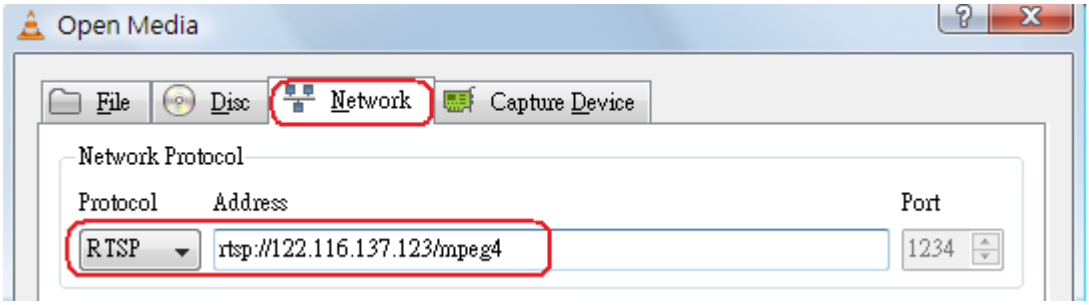


10.) Type in the RTSP address of your device

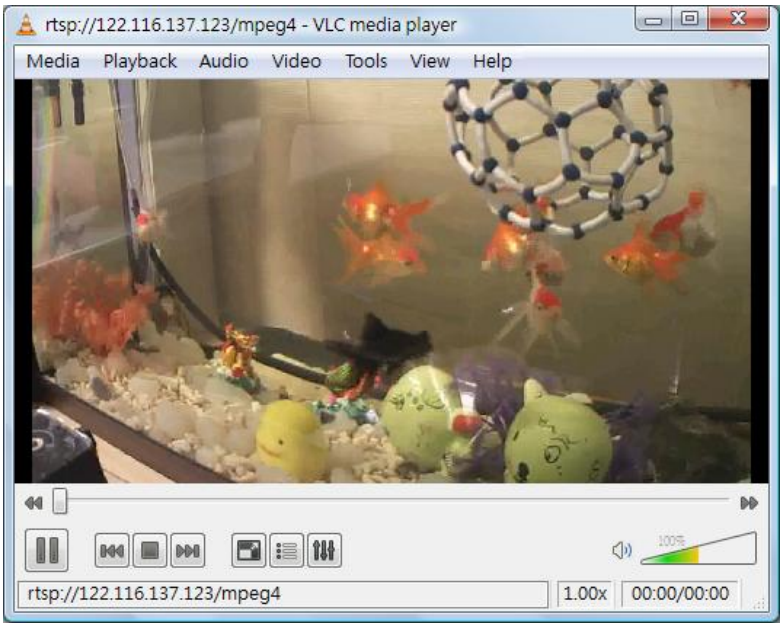
For Mpeg4 Stream1 : rtsp://<IP Address>/mpeg4

For Mpeg4 Stream2 : rtsp://<IP Address>:8554/mpeg4

Example: rtsp://122.116.137.123/mpeg4



11.) Hit the play button and wait a few seconds for the program to start streaming.



9.) Using CNT with Surf16 CH

CNT makes connecting to the IP Kamera 9070 a very simple task. Using Surf 16 CH and multi device DVR monitoring software, you can easily view your 9070-CSWO/CSO.
Follow these simple steps:

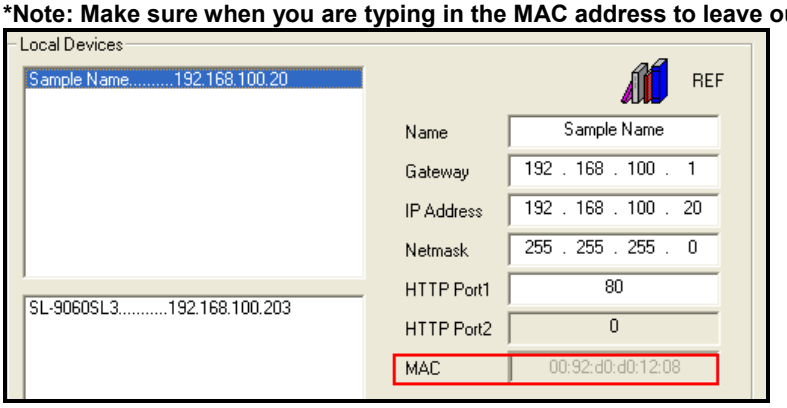
MAC Address

There are two ways to find the MAC address in IP Edit .
***Note: IP Server must be enabled on your device's webpage. By default IP Server is enabled.**

Find MAC Address in LAN Using IP Edit

1.) In IP Edit , highlight the device that you are using. On the right side of IP Edit you will find the MAC Address that you will need to use CNT.

***Note: Make sure when you are typing in the MAC address to leave out the ":"**

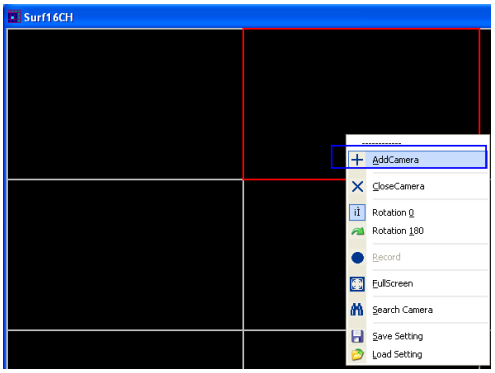


Find MAC Address in WAN Using IPService on IP Edit

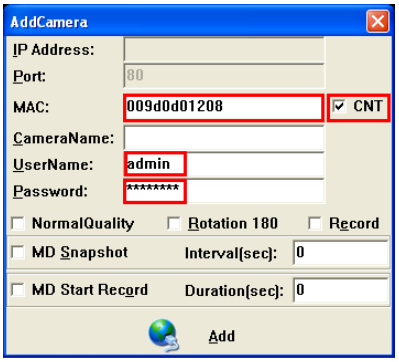
1.) To find your MAC Address through the internet, Open IP Edit and hit the connect button on IP Service.
2.) Then Type in the name of your device in this case it is "Sample Name", then hit the search button.
3.) Your device should be listed and the MAC address should be displayed on the screen. Copy down the MAC address and use it to connect via CNT.

Add device using CNT

1.) On Surf 16 Ch DVR software, right click on the screen on one of the windows and select Add Camera



2.) Then under the section labeled **MAC:** Type in the MAC address.



3.) Do not forget to enter the password and login.

10.) Frequently Asked Questions (F.A.Q)

For More updated FAQ please visit the FAQ section of website at:
http://sites.google.com/site/aviosysfaq/

Q1: Why can't I view the video files that I have recorded, nothing is playing?

Ans: VLC Codec, you can download VLC Codec from their website at:

Q2: How do I reset the device to manufacturers default values

Ans: On the back of the device there is a reset button, hold down the reset button for more than 7 seconds. Then give the 9070-CSWO/CSO a 1 minute to restart. Once the device has restarted it will be set back to manufacturer default settings.

Default Values
Default IP: 192.168.1.168 (When 9070-CSWO/CSO is connected to PC directly)
Default Login: admin
Default Password: 12345678

Q3: Why does the device on EPTZ change my video mode?

Ans: When EPTZ is activated Video Codec mode will be switched to MPEG4 & M-Jpeg when disabled the codec will be set on Mpeg1, Mpeg2, & M-Jpeg.

Q4: How do I take snapshots using the EPTZ function?
Ans: When using EPTZ function remember that only the snapshot functions works with the EPTZ controller. If you are just using the mouse to Pan Tilt and Zoom into your picture you the snapshot button will not capture the screen correctly. A way you can take a picture of the screen using the EPTZ with the mouse is to click on the print screen button on your computer.

Q5: Why is the RTSP not connecting to my VLC player or Quick time Player?
Ans: To use the RTSP functionality it is necessary to first set your 9070-Lite to be the DMZ host in your network. Also be sure to port forward your device at the following ports.

Port 554 for 1280 x 720P
Port 8554 for CIF format

Please refer to the routers manual on how this is setup

Q6: How do I improve the image quality on this device?
Ans: The Image quality of the 9070 is dependent on the bit rate of the device. With a larger bit rate the device will naturally create higher quality image, but this will affect the smoothness of the streaming when accessed through the internet. To find the most optimal settings for image quality and streaming smoothness, try different bit rate settings to achieve the best fit settings. .

11.) Customer Feedback

Your Feedback is definitely important for us to continue providing the great quality products and service that Aviosys has to offer. We definitely would like to know what you think about our products and how we can we can make your Aviosys experience even better.

Please email us at our service department at Service@Aviosys.com or visit customer feedback form at:

http://spreadsheets.google.com/viewform?hl=en&formkey=dGowalg3UndrdTJHNUIxdlljQXI3Q2c6MA..#gid=0

We are happy to serve you to the best of our ability and to provide an ongoing positive experience with Aviosys. Thank you for your support.